Lectures
ON THE
PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.

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LECTURE III.[1]—PART I.
ON GLOSSOPLEGIA AS AN EFFECT OF DISEASE OF THE BRAIN.

The tongue may be paralysed on the side of a lesion of the brain, in cases of disease or injury to parts of that organ above the place of origin of the hypoglossus nerve—This direct paralysis may exist with a direct or with a cross paralysis of limbs, and it may also exist without a paralysis of arm or leg—Two kinds of altern paralysis of limbs and tongue may appear; in one the glossoplegia is on the side of the lesion while the limbs have a cross paralysis, in the other just the reverse is observed—Glossoplegia may be due to lesions in the most various parts of the brain—Conclusions from the facts relating to the variety of seats of such lesions.

MR. PRESIDENT AND GENTLEMEN,—As it is impossible in one lecture to give, even in the most condensed manner, all the arguments I have gathered against the received views on the production of paralysis, and also all those which I have collected with the purpose of building a new theory on the mechanism of formation of paralysis, I will select a number of arguments belonging to these two series, and offer them to your appreciation under the following five distinct headings:—

1st. Disagreement between the significance of a great many cases of paralysis of the muscles of the tongue, the eye, the neck, the sphincters, and other parts, with the generally admitted views about the formation of paralysis in brain disease.

2nd. Facts showing that, notwithstanding the destruction or a deep alteration of one or of several of the parts supposed to belong to the voluntary motor apparatus, in the cerebral lobes or in the base of the encephalon, paralysis may not appear either in limbs or in other parts.

3rd. Facts showing that paralysis may appear with or without other symptoms of organic lesion of the brain, in cases in which the supposed cerebral voluntary motor apparatus seems to be free from alteration, the part injured or diseased being either in the non-motor parts of the encephalon or outside of that great nervous centre, either in the meninges, in the cranium, in the ear, or in organs or nerves far away from the head.

4th. Facts showing that a sudden or rapidly-formed lesion of the brain may be followed by a slowly-developed paralysis, or that a sudden paralysis may be caused by a slowly-formed organic disease, and also that a paralysis can appear intermittently or be cured rapidly, notwithstanding the persistence of a lesion of some part of the supposed cerebral voluntary motor apparatus.

5th. Proofs that the various suppositions advanced to explain the facts that are in contradiction with the admitted theories of production of paralysis are groundless and erroneous. New views on the mechanism of formation of paralysis and on the physiology of the brain and spinal cord as regards voluntary movements and their inhibition. Conclusions concerning the diagnosis and treatment of paralysis.

Without any other introductory remark I at once now enter into the discussion of cases of paralysis of muscles of the tongue, eyes, sphincters, neck, and other parts, with the purpose of showing that the universally admitted theories on the mode of formation of paralysis do not agree, or rather disagree, with a very large number of those cases.

I. PARALYSIS OF THE TONGUE IN DISEASES OF THE BRAIN.—I will leave aside the more or less evident paralytic condition of the muscles of the tongue allied with or caused by alterations of certain mental faculties, and especially that of expression of ideas by speech. The most frequent of the various paralytic states of the tongue—that shown by the fact that when that organ is thrown out of the mouth by an act of will, it deviates either to the left or to the right—is the kind of loss or of diminution of voluntary motor power that I will chiefly consider. The first argument I will make use of is the following:—

1st. *The tongue may be paralysed on the side of lesion of the brain in cases of disease of or injury to parts of that organ above the place of origin of the hypoglossus nerve.*—Facts showing the correctness of that proposition are very numerous. I will briefly mention a number of them, with the double purpose of trying to establish, first, that most parts of the brain can produce such a paralysis; secondly, that in three distinct kinds of cases we may find glossoplegia occurring on the side of a cerebral lesion—in one kind of cases paralysis of the tongue and that of limbs are both on the same side as that of the lesion; in the second, the tongue is still paralysed on the side of the lesion, but the limbs are affected on the opposite side; in the third, the glossoplegia is, as before, on the side of the lesion, but the limbs are not paralysed on either side.

The number of cases belonging to the first of these three kinds is very small, but a few facts on that point are quite sufficient to establish that sometimes the tongue is paralysed on the side of a lesion in the brain, which produces also paralysis or anæsthesia of one or two limbs on the same side. One of the best of these cases was published by Lagarde, under the supervision of Laennec.[2] The patient was attacked with rigidity and anæsthesia of the *right* arm, and had a paralysis of the protruding muscles of the *right* side of the tongue, as shown by the deviation of that organ to the *right* when it was put out of the mouth. In the cortical substance of the *right* middle lobe there was a small softened part, out of which purulent matter issued. The rest of the encephalon was healthy. In a case of Parra d'Andert's[3] a man was stricken down with paralysis and anæsthesia of the *left* limbs; the *left* side of his face was paralysed, and the point of his tongue deviated to the *left*. Later on, the right limbs were also paralysed. The *left* corpus striatum and optic thalamus were destroyed, replaced by a large ulceration; a clot was found in the *left* crus cerebri. The cause of the extension of the paralysis to the right limbs was found in the presence of a great deal of blood in the two ventricles. In Dr. Peter Eade's case,[4] which I have already mentioned, the tongue deviated to the *left*—i.e., the side on which the limbs were paralysed. The *left* corpus striatum was considerably altered, while there was only an extremely slight alteration of the right one. Dr. Bourneville,[5] an able pupil of Professor Charcot, relates a case of paresis of the *right* limbs, with protrusion of the tongue to the *right*. There was an obliteration of many cerebral arteries, but the only obstructing clot which was not recent was in the *right* Sylvian artery. Rostan[6] gives a case of complete paralysis of the *left* limbs, with deviation of the tongue to the *left*. The whole *left* posterior lobe was destroyed by softening. Very slight alterations were found in the white substance of the right hemisphere. In a case of Hayem's[7] the tongue slightly deviated to the *right*, the limbs and face being also paralysed on the *right* side. The *right* lobe of the cerebellum was considerably softened *(en bouillie)*. There was also softening of the inferior part of the pons Varolii and of the upper part of the medulla oblongata. A clot beginning in the upper extremity of the basilar artery completely obstructed the *right* posterior cerebral and the *right* superior cerebellar arteries.

[1] The first lecture appeared in THE LANCET, vol. ii. 1876, and the second in vol. i. 1877.

[2] Revue Médicale, 1826, vol. iii., p. 201; and also in Cours Théor. et Clinique de Pathologie Interne, par E. Gintrac (Paris, 1860), vol. viii., p. 233.

[3] Thèse de Paris, 1827, No. 149, p. 6, quoted by Gintrac, loc. cit., vol. vii., p. 232.

[4] THE LANCET, 1857, vol. ii., p. 134.

[5] Gazette Médicale de Paris, 1867, p. 208; and Comptes Rendus de la Soc. de Biologie pour 1867, pp. 8—12.

[6] Recherches sur le Ramollissement du Cerveau (Paris, 1823), 2de édit., p. 31.

[7] Published in Gonguenheim's thesis, Des Tumeurs Anévrysmales des Artères du Cerveau (Paris, 1860), pp. 62-64.

It is clear from those cases that the tongue can be paralysed, together with the limbs, on the side of the only lesion found in the brain, or on the side of the main lesion when there are morbid alterations in the two sides of that organ.

In the second series of cases I have to report, the tongue was paralysed on the side of the cerebral lesion, while the limbs on the opposite side were affected in their motor power. These cases belong, therefore, to a special kind of *altern* paralysis. I will only mention—and most briefly—a small number of these cases, which are far from being rare, although it is not true, as was once stated by several members of the Anatomical Society of Paris,[8] that the tongue, in ordinary cases of hemiplegia due to brain disease, deviates as often towards the side of the cerebral lesion as towards that of the hemiplegia.

The following observers have found a deviation of the tongue towards the side of lesions in one of the hemispheres of the brain, while the limbs showed the ordinary cross hemiplegia:—Faton,[9] Lerminier,[10] Béhier,[11] Leriche and P. Bérard,[12] Gintrac,[13] and Piédagnel.[14]

The optic thalamus alone, the corpus striatum alone, or these two ganglia on one side, were the seats of the lesion producing that peculiar altern paralysis of the tongue and limbs, in cases recorded by Montault,[15] Durand-Fardel (two cases),[16] Gintrac (two cases),[17] Riobé,[18] Duplay,[19] Thouret,[20] and many others. To these cases I ought to add one of Professor Charcot's,[21] in which there was red softening of the *left* optic thalamus and *left* crus cerebri. The tongue in that case did not come out of the mouth, but was found pressed against the teeth and deviated to the *left*, while the limbs were paralysed on the right side.

In several of the cases I have mentioned there was disease of the cortical substance, with some lesion elsewhere. In a case, recorded by Dr. Dreyfus,[22] there was an affection limited to the surface, the principal lesion being along the *right* fissure of Rolando. The tongue deviated to the *right*, while the limbs and face were paralysed on the left side.

The same kind of altern paralysis has been noticed by Berger[23] in a case of abscess in the *right* crus cerebri and the *right* half of the pons Varolii. The limbs and face were paralysed on the *left* side, and the tongue deviated to the *right*. In other cases of lesion of one-half of the pons Varolii[24] there was also that kind of altern paralysis, the lesion being too far from the nucleus of the hypoglossus nerve, in the medulla oblongata, to have produced any direct effect upon it.

Is it not clear from most, if not from all, the facts I have so far mentioned that the tongue can be paralysed on the side of the brain lesion, whether that lesion is in the pons Varolii, in the crus cerebri, in the optic thalamus, in the corpus striatum, in the white substance, or the convolutions of the brain, or even in the cerebellum? If so, how can it be admitted that a lingual paralysis, or rather a glossoplegia, in cases of brain disease, depends on the destruction or alteration of conductors or cells employed in the production of voluntary movements in the tongue? The supposition that the centre of the movements of the tongue on one side is in the opposite side of the brain is proved to be false by a large number of cases. The view that there is a certain part of the convolutions which is the psycho-motor centre of the tongue is clearly shown to be wrong from the fact that in many cases I have mentioned the lesion was in parts of the brain at a distance from that supposed centre, and not on the track between it and the spinal cord. This was particularly the case where the lesion was in the posterior lobe, in the cerebellum, or in the optic thalamus. I will return to this point hereafter, and show that a lesion anywhere in the brain can produce a glossoplegia.

As regards the third kind of cases there is only one clear fact that I can mention. In that case, recorded by Dr. E. C. Seguin,[25] of New Yark, the tongue deviated to the *left*, while the right side of the face was paralysed, the limbs being free from paralysis. The left glossoplegia and the right facial palsy were due to a very large abscess in the *left* middle lobe of the brain, extending from the meninges down to the lateral ventricle.

It is evident, then, that *a glossoplegia on the side of a cerebral lesion can appear either without a paralysis of limbs or with a paralysis of these parts on the side of the lesion, or on the opposite side.* I now pass to another proposition.

2nd. *The tongue may be paralysed on the opposite side to that of a cerebral lesion, while the limbs are paralysed on the corresponding side.* I know of only two clear cases of this kind. In one of them, reported by a most able observer, Dr. Henry Day,[26] of Stafford, there was paralysis of the face and limbs on the left side, while the tongue deviated to the *right*. It was found that the *left* middle lobe, from top to bottom, and including the corpus striatum, was completely softened and broken down almost into a pulp. In another case, published by Lerminier,[27] Andral's teacher, the tongue deviated to the *right*, while it was on the *left* side that the limbs were paralysed. There was an ounce and a half of serosity in the left lateral ventricle, the membrane of which was thickened.

In these two cases there was an altern paralysis of the tongue and limbs, as in a number of the cases I have mentioned, but with this difference, that in one of these series of cases the cross paralysis was in the limbs and the direct in the tongue, while it was just the reverse in the other. Neither one nor the other of these two kinds of altern paralysis can be reconciled with the admitted view that paralysis of the tongue or limbs appears as an effect of the cessation of action of the part where we find disease in the brain. In all those cases, according to the received notions, what should have been observed is a paralysis of the tongue and of the limbs both on the same side, and that side should have been the opposite to that of the lesion. In other words, there should always have been a cross paralysis of both the tongue and limbs.

3rd. *Glossoplegia may be due to lesions in the most various parts of the brain.*—According to Dr. D. Ferrier,[28] the protrusion of the tongue has its psycho-motor centre in the lower extremity of the ascending frontal convolution, close by the fissure of Sylvius. As regards the fibres which go from that pretended centre to the nucleus of the hypoglossus nerve in the medulla oblongata, they must pass through the white substance of either the anterior or the middle lobe, or through very small parts of both these lobes, in their way either directly to the crus cerebri, or indirectly after crossing the corpus striatum. It is evident that if we exclude the base of the brain and the corpus striatum, no cerebral lesion in other parts of the convolutions than that which is looked upon as the psycho-motor centre of the tongue, and in parts of the white substance other than the small one just specified, ought to cause a glossoplegia. Such is not the case, as we find lesions in all parts of the brain able to produce that local paralysis. If all this is correct, there must be some facts in harmony with the views of localisers, and so there are. The number of cases clearly in harmony with these views is, however, extremely small. I will begin the enumeration of cases which I intend to make, to show that a lesion almost anywhere can produce a glossoplegia, by the apparently favourable cases, and after mentioning those cases I will give some doubtful ones, and then adduce those which are unfavourable, from the least to the most so.

In a small number of cases of lesion of the convolutions bordering on the fissure of Sylvius on one side, there was a diminution of the protruding power of the tongue on the opposite side, so that, when put out of the mouth, that organ deviated towards the side opposite to that of the lesion.

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[8] Bulletins de la Société Anatomique for 1833, vol. viii., 2nd edit., p. 32.
[9] Bulletins de la Soc. Anat. (Paris, 1848), vol. xxii., p. 344.
[10] Annuaire Médico-Chirurgicale (Paris, 1819), p. 219.
[11] Gazette des Hôpitaux (Paris, Mai, 1874), p. 489.
[12] Bulletins de la Soc. Anat. de Paris, 1835, vol. x., pp. 57-61.
[13] Loc. cit., vol. ix., pp. 817-19.
[14] Journal de Physiologie de Magendie, vol. iii., p. 247.
[15] Journal Universel et Hebdomadaire de Médecine, vol. ii. (1831), p. 300.
[16] Quoted by Gintrac, loc. cit., vol. vii., pp. 160, 196.
[17] Loc. cit., vol. vii., p. 34; vol. viii., p. 329.
[18] Thèse (Paris, 1814), p. 13, quoted by Gintrac, loc. cit., vol. vii., p. 157.
[19] Journal Hebdomadaire (1829), vol. iii., p. 296.
[20] Same Journal, vol. i. (1828), p. 439.
[21] Published by his pupil Pouneau, Du rôle de l'Inflammation dans le Ramollissement Cérébral (Paris, 1866), p. 44.
[22] Published in Laudouzy's work, Contribution à l'Etude des Convulsions et Paralysies, &c. (Paris, 1876), p. 161.
[23] Bulletins de la Société Anatomique de Paris (1869), p. 146.
[24] See a case of abscess in that organ in St. George's Hospital Reports (1878), vol. iii., p. 263; and two others of hæmorrhage, one recorded by Dr. Broadbent, in Transactions of the Pathological Society of London (1861), vol. xii., p. 16, the other by Mr. F. Mason, in THE LANCET, vol. i. 1861, p. 561.
[25] Quarterly Journal of Psychological Medicine, New York (Jan., 1868), p. 113.
[26] THE LANCET, Jan., 1875, vol. i., p. 121.
[27] Annuaire Médico-Chirurgical (Paris, 1819), p. 221.
[28] The Functions of the Brain (London, 1876), pp. 143, 272, and 97

Such are cases reported by Vitry,[29] Wernher,[30] and Hitzig.[31] When the time comes, I will show how valueless those cases are, by relating others showing that the upper lip of the fissure of Sylvius can be destroyed without any appearance of glossoplegia.

The next apparently favourable cases I intend mentioning are the following—one recorded by Bouillaud,[32] and one by Leroux.[33] In the first of these cases the tongue deviated to the right, and there was a vast abscess in the left hemisphere at the place of union of the anterior and the middle lobes. In the second there was an abscess near the anterior extremity, and another in the upper and middle parts of the hemisphere, with deviation of the tongue to the left.

Andral[34] relates a case of softening and ulceration of the right anterior lobe, which caused at first left hemiplegia, with deviation of the tongue to the left. Hayem[35] has seen a right glossoplegia with right hemiplegia, caused by softening of a great part of the left anterior lobe. In a case of softening limited to three small parts of the white substance of the left anterior lobe, near the corpus callosum, A. Frey[36] found that the tongue deviated a little to the left. Lallemand,[37] in a remarkable case, in which there had been slight deviation of the tongue to the right before paralysis of the right limbs, found the pia mater adhering to the convolutions, to an extent of three or four inches, on the anterior and external parts of the left hemisphere. The brain-tissue at that place was softened, and contained two very small effusions of blood. Poumeau[38] has seen the tongue deviating to the left, in a case of softening of the second frontal and the second sphenoidal convolutions, caused by the obliteration of the right Sylvian artery.

As regards the influence of the middle lobe on the tongue, this organ on protruding deviated towards the side opposite to that of a lesion in the following cases, which I select as good specimens to show the great variety of seats of the morbid organic change. In these cases the lesion was an abscess in part of that lobe corresponding with the temporal fossa (Desruelles);[39] a large hæmorrhage in the middle and superior part of the right hemisphere, above and behind the corpus striatum (Andral);[40] a tumour above the left lateral ventricle and the corpus callosum, with an ulceration of the middle part of the left hemisphere (Charcelley);[41] a tumour, size of a small hen's egg, above the corpus callosum, and outside of the left ventricle (Baudot);[42] a clot, surrounded by softening above the left ventricle (R. B. Todd);[43] an induration, size of a walnut, two inches from the falx in the anterior part of the left middle lobe (J. H. Bennett).[44]

In the cases I will now give a part of the posterior lobe was the seat of the organic alteration. The lesion producing the deviation of the tongue was a copious hæmorrhage in the left posterior lobe behind and on the outer side of the optic thalamus, and nearly on its level (Andral[45]); a softening of the right posterior lobe (Poumeau[46]); a small abscess in the middle of the right posterior lobe, which was yellow and softened (Bouillaud[47]; an atrophy of the convolutions of the left posterior lobe (Nivet[48]).

Organic affections of the optic thalamus also give rise to a paralytic deviation of the tongue—i. e., to glossoplegia. Out of many cases, I will point out as examples, one of slight hæmorrhage in the left optic thalamus (J. Crichton Browne[49]); another of hæmorrhage also—a clot, size of a small walnut—in the right optic thalamus (Tacheron[50]); and a third, of a tumour, the size of a hen's egg, in the right optic thalamus, pressing on the tubercula quadrigemina (Friedreich[51]).

I need not say that a protrusion of the tongue to the left or to the right is very often observed in cases of disease of the corpus striatum, but I will show by a few facts that a lesion of a part only of the intraventricular corpus striatum can produce the same effect on the tongue as the disorganisation of the whole of that ganglion. In two cases the centre of the right corpus striatum (Dr. R. B. Todd[52] and Jacquet[53]), in a third the posterior part of the left corpus striatum (Wenzel[54]), and in a fourth the external or outside part of the right corpus striatum (Gintrac[55]), were seats of the lesion. The tongue protruded to the left in a case in which the upper surface of the right corpus striatum was the only part of it that may have been altered. There was only an accumulation of clear fluid in the right ventricle (Gintrac[56]). The extraventricular corpus striatum, which some localisers consider as not belonging to the voluntary motor centre, can also produce glossoplegia. Among the many cases of that kind I could mention I will refer to one of Gintrac's.[57]

In all these cases we find the same thing: a paralysis, and always an incomplete one, of the protruding muscles of the tongue. Is it possible to admit that the fibres of the hypoglossus nerve, which are paralysed in those various cases, or the cortical centre from which those fibres are supposed to originate, and the other centre (corpus striatum) through which they are believed to pass, have been injured or altered in all the cases I have briefly mentioned? If so, we would have to admit that the centre of origin of these fibres is in one individual in the anterior, in another in the middle, and in still another in the posterior lobe, and we would have also to admit that these fibres pass in any part of the brain, in one individual in one part, in another in a different one, and so on in the greatest variety of parts. I know that it may be said that in a number of the cases I have mentioned there was an extended lesion, and that by pressure, if not otherwise, there may have been an alteration of the hypoglossal fibres, from a lesion at some distance from these fibres. No doubt a pressure on more or less distant parts must have existed in some of those cases; but what of the cases in which that cause cannot have existed? Besides, as I will show hereafter, in a very large number of cases considerable pressure has been made on the pretended motor centre of the tongue, or on the corpus striatum, or the base of the brain, without any trace of glossoplegia. *We must admit therefore that a paralysis of the protruding muscles of the tongue may appear from lesions in the most various parts of the brain,—in those that have no fibres or cells employed in the protruding movement of that organ, as well as in parts supposed to be endowed with that function.*

[29] Thèse de Paris (1823), No. 110, p. 36; quoted by Gintrac, loc. cit., vol. vii., p. 5.
[30] Revue des Sciences Médicales, de Hayem (1873), p. 51; and Contributions à l'Etude des Convulsions et des Paralysies, par L. Landouzy (Paris, 1876), p. 202.
[31] In Lépine's paper, De la Localisation dans les Maladies Cérébrales (Paris, 1875), p. 45.
[32] Traité Clinique et Physiol. de l'Encéphalite (Paris, 1825), p. 146.
[33] Cours de Médecine Pratique (Paris, 1827), vol. viii., p. 275.
[34] Clinique Médicale, 4ème édition (Paris, 1840), vol. v., p. 404.
[35] Thèse de Paris (1868), No. 124, p. 157.
[36] Revue des Sciences Médicales, de G. Hayem (Paris), vol. viii. p. 194.
[37] Recherches Anatomico-pathol. sur l'Encephal. (Paris, 1830), vol. i., p. 19.
[38] Du Rôle de l'Inflammation dans le Ramollissement Cérébral (Paris, 1868), p. 61.
[39] Bulletins de la Société Médicale d'Emulation (Paris, 1824), p. 372, and in Gintrac, loc. cit. vol. viii., p. 255.
[40] Loc. cit. vol. v., p. 312.
[41] Bulletins de la Société Anatomique de Paris (1836), vol. xi., p 43.
[42] The same Bulletins (1850), vol. xxxv., p. 98.
[43] Clinical Lectures (London, 1861), p. 730.
[44] Clinical Lectures on the Principles and Practice of Medicine (Edinburgh, 1859), p. 374.
[45] Loc. cit., vol. v., p. 302.
[46] Loc. cit., p. 51-55.
[47] Loc. cit., p. 137.
[48] Bulletins de la Société Anatomique de Paris (1836), vol. xi., p.121-9.
[49] West Riding Lunatic Asylum Reports (London, 1875), vol. v., p. 232.
[50] Recherches Anatomico-pathologiques sur la Médecine Pratique (Paris, 1833), vol. iii., p. 438.
[51] In Ladame's Symptomatologie und Diagnostik der Gehirngeschwülste (Würzburg, 1865), p. 177.
[52] Loc. cit., pp. 629 and 640.
[53] Thèse de Paris (1817), No. 87, p. 53; and in Gintrac, loc. cit., vol. vii., p. 157.
[54] De Penitiori Cerebri Structura, p. 98; and in Gintrac, loc. cit., vol. vii., p. 147.
[55] Loc. cit., vol. vii., pp. 147-8.
[56] Loc. cit., vol. ix., pp. 22-23.
[57] Loc. cit., vol. vii., pp. 143-144.

BEQUESTS, &C., TO MEDICAL CHARITIES.—The Seaside Convalescent Hospital, Seaford, has received £1025 8*s.*, less duty, under the will of Mr. William Thomas, of the Boltons. The executors of the will of Mrs. Gibson have apportioned £500 each to the Warneford, Leamington, and South Warwickshire Hospital, the Coventry and Warwickshire Hospital, and the Birmingham and Midland Free Hospital for Sick Children. Mrs. Margaret Collins Lambert, of Finchley, bequeathed £500 to the Monmouth Hospital. Mr. Robert Alexander Grey, of Camberwell, bequeathed £100 each to the Seamen's Hospital and the Earlswood Asylum for Idiots. "H. S. C." has given £100 to the Charing-cross Hospital. Mr. Hozier, of Mauldslie, bequeathed £200 to the Western Infirmary, £200 to the Royal Infirmary, and £100 to the Ophthalmic Institution; all at Glasgow. The Misses Brooke have given £1000 to the Adelaide Hospital, Dublin; £300 to the City of Dublin Hospital; £200 to the Rotundo Lying-in Hospital; and £100 to the Cripples' Home, Bray. Mr. Smyth has bequeathed £200 to the Adelaide Hospital, Dublin.

Clinical Lectures
ON
EXCAVATION OF THE LUNG IN PHTHISIS.

Delivered at the Brompton Hospital for Consumption and Diseases of the Chest.

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LECTURE VI.

Pneumothorax in phthisis; two pathological conditions favouring its occurrence; symptoms, signs—Absence of amphoric breathing suggests a valvular opening—Description of schema illustrating (1) the mechanics of respiration; (2) showing how the conditions are disturbed in emphysema, pneumothorax, and hydrothorax; (3) mechanism of cardiac displacement.

GENTLEMEN,—I have in this my last lecture to speak of one more accident that may happen to patients with cavities in the lungs, either in process of formation or fully formed and of some date—namely, pneumothorax, or effusion of air into the pleura.

There are several other causes that may give rise to pneumothorax, but it is with perforation of the lung occurring in the course of phthisis that we are now concerned. This fatal accident of phthisis is by no means very rare. Of one hundred cases of phthisis of which I have a careful post-mortem record there were five cases of pneumothorax—a percentage, however, somewhat too high, as I did not take a special note of many less interesting cases of phthisis. Of seventeen cases which I have tabulated from the hospital, nine were males, six females, and in two the sex was not mentioned. Five cases were right-sided, ten left-sided, one double-sided but the left first affected, and in one case the side was not mentioned.

As regards the pathology of the disease, there are two distinct conditions which may be present in phthisis, and which tend to the occurrence of pneumothorax: firstly, the constant breaking-down of tubercular and pneumonic infiltration which characterises the progressing disease; secondly, a disposition in certain cases to the formation of sinuses leading from old but usually active cavities towards the pleural surface—the sinuses differing in no important respect from those which form in the neighbourhood of diseased joints.

Of course the first of these conditions is the most common and most favourable to the occurrence of pneumothorax. As you are aware, however, we may usually reckon upon the formation of adhesions between the pleural surfaces keeping pace with the destructive disease as it successively involves fresh portions of lung. Were it otherwise, pneumothorax would be very common. But in some cases—and they are the most acute and typical cases of caseous pneumonic phthisis—no such adhesions take place. The pleural surfaces are covered with a finely granular aplastic lymph, at first transparent or faintly opalescent, and readily scraped off with the scalpel, leaving the shining pleura beneath. In older cases this thin false membrane becomes more or less opaque and tough, but still remains smooth and becomes polished, without showing any tendency to form adhesions. Beneath the membrane, and dimly shining through it, may frequently be seen, as in the specimens I now pass round, yellow opacities of the pleura, one or several, varying in size from that of a pin's head to that of the section of a bean. These opacities are really the pleura thinned and necrotised at certain points, from the liquefaction of immediately subjacent caseous nodules, which have undermined it and cut off its vascular supply. Such are the patches which, by giving way, most frequently cause pneumothorax. I have here a good specimen of a fistulous canal extending from an old cavity slantingly through some thickness of pleura, and thus giving rise to pneumothorax. Cases of this kind are less common, since adhesions are usually firmly established over the region of such old cavities, sinuses from which, however, may in some cases penetrate through to the subcutaneous tissue of the thoracic wall.

I may sum up the *symptoms* of pneumothorax—no one of which is alone absolutely characteristic—as being sudden acute pain in the side, followed, or rather attended, by great dyspnœa and shock, rapid respiration, frequent feeble small pulse, feeble or suppressed voice, great restlessness of position, but more or less complete orthopnœa with inclination to the sound side. Great hyperæsthesia of the affected side and a sense of trickling within the pleura are often complained of. Pneumothorax sometimes comes on quite insidiously; but suddenness of onset, when it does occur, is a most characteristic feature.

The physical signs of pneumothorax are positive, and rarely to be mistaken. The distressful and alarmed countenance and the evident shock are often alone almost sufficient for diagnosis. On examination, the affected side is found to be enlarged, with effaced intercostals, and but little movement with respiration. The heart is displaced towards the sound side. The percussion note is greatly hyper-resonant, or truly tympanitic, where it had before perhaps been dull. The respiratory murmur is generally absent or very feeble over the affected side, but at one or two points amphoric breathing, of peculiarly metallic quality and with metallic echo on cough, may be heard. Pectoriloquy is rarely present. Metallic tinkling may be heard after cough. Vocal fremitus is absent or much diminished. If the patient survive a few hours, intense pleurisy sets in, usually about the second day, with febrile symptoms and effusion of purulent matter into the chest. We then get dulness at the lower, resonance at the upper portion of the chest, the two shifting with the position of the patient. On placing the ear down upon the chest and giving the patient a somewhat abrupt shake, a splashing sound is heard quite characteristic of pyo-pneumothorax. This succussion sound may be obtained when we can otherwise find no evidence of the existence of fluid in the pleura, it being possible for a considerable portion of fluid to rest in the hollow of the relaxed diaphragm without giving rise to dulness. One might add some other supplementary signs to those I have just enumerated; but of them all the most important are the *hyper-resonance*, the *displaced heart*, and the generally enfeebled or suppressed breath-sound, with, most frequently, metallic amphoric breathing localised at one or two points. Indeed, these are the essential signs of pneumothorax. With reference to the auscultatory signs, I will only observe that the more complete the absence of breath-sound the more probable it is that the perforation of the pleura is valvular, and, correspondingly, the more urgent will be the symptoms. On the other hand, the more distinctly amphoric the respiration, and especially the *expiration*, the freer the opening, the less the probability of accumulation of air, and the less dangerous the immediate prospect.

On the subject of displacement of the heart in pneumothorax I must pause a little, and ask your permission as briefly as possible to refer to some facts respecting the mechanism of respiration, which this cardiac displacement illustrates and is in turn explained by. The position of the heart is an important index of the presence and degree of pleuritic effusion, whether this effusion be of air or of fluid. In order to understand how sensitive an index the heart is in these respects, I must ask you to go back to some, I fear you will think, elementary considerations on the mechanical conditions under which respiration is effected. These are somewhat more complex than has been generally taught.

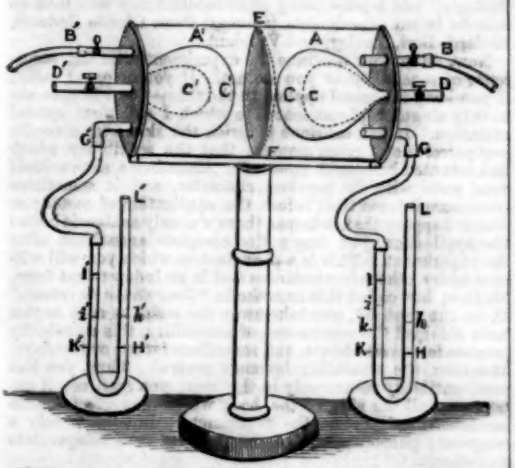
In the first place the lungs may be accurately regarded as elastic bags constantly maintained in a state of partial expansion, in consequence of the thoracic wall bearing off the weight of the atmosphere from the outside and so compelling such an influx of air as shall partially distend them. At any period after birth, whilst the lungs are sound, we find them semi-expanded—i.e., with a tendency to collapse to a smaller bulk; and we find the thorax—I am speaking now of the period of pause at the end of the respiratory act, or after death—we find the thorax somewhat contracted, having a tendency to enlarge.

Anyone who has made many post-mortem observations will have observed the lungs to collapse partially on making an opening into the thorax. Again, it is not difficult to demonstrate, by means of a suitable instrument,[1] that on opening the thorax cautiously, as the air

[1] Salter: Lectures at the College of Physicians, THE LANCET, Aug. 5th, 1865; see also a paper by the author in the Med.-Chir. Trans., vol. lix. p. 173.

enters, the chest expands slightly. The expansion of the chest on being released from the lung traction is, it is true, but very slight, only from two to four millimetres, but this multiplied by the area of the internal thoracic surface represents a considerable space.

This schema (see fig.), which Mr. Hawksley has constructed for me, illustrates very well the conditions I am speaking



The figure represents a glass chamber, closed at either end by an air-tight cap, through which tubes pass communicating with the interior. The chamber is divided into two portions (A and A'), by mediastinum (E, F), consisting of sheet india-rubber, each representing one-half of the thorax, and containing an elastic bag (C, C'), to represent the lung with trachea (D, D'). G, G', are tubes opening into the interior of thoracic chambers, and connected with manometers. B, B', tubes similarly opening into chambers, and provided with stop-cocks.

of. On exhausting the air from the chamber A, by suction through the tube B, I cause the bladder C, which represents one lung, and communicates with the external air by trachea tube D, to expand. If I now turn stopcock B (D remaining open) the bladder remains expanded, and we are at liberty to examine into the present condition of things. To be accurate, however, we must exactly repeat the experiment with chamber A', which is separated in an air-tight manner from chamber A by an elastic substance (E F) representing the mediastinum. Let me then inhale through the tube B', and thus expand the second lung C', provided with its trachea D'. The mercurial dynamometers L L' attached to the chambers A and A' respectively indicate the force used to maintain the lungs in this state of partial expansion. They also illustrate the fact which I have pointed out, that not only do the lungs tend to contract, which is obvious, they being elastic bags, but also that the thoracic walls are drawn inwards, and tend to expand. The mercurial surfaces H H' are the only portions of the thoracic (chamber) walls of the schema which are at liberty to respond to the traction of the lungs; and the number of centimetres of mercury displaced towards the chamber divided by the area of the inner surface of the chamber, would fairly (but not accurately) represent in millimeters the corresponding contraction of each point of the thoracic wall. Now you will observe that the atmospheric pressure upon the interior of the lungs C C', and upon the exterior of the thoracic (chamber) wall H H' respectively, is that of the normal barometric pressure to which they are both exposed. The displaced mercury (I K, I' K') is the resultant of the contending elasticities of the lungs and the thoracic walls acting in opposite directions by virtue of the original exhaustion of the chambers through tubes B B'. I have already said that it is not to me clear how this *original exhaustion* is effected in the new-born animal, but it exists, and is thus accurately represented.

Here we have, then, what may be called the statics of the chest represented—i.e., the conditions present during a pause in the breathing or after death (provided the lungs be sound).

Now, in order accurately to represent inspiration I must expand the lungs, C C', not by further exhausting the chambers through the tubes, B and B', but by drawing upon the mercurial columns through L L'. By doing this, my mouth representing the diaphragm, I have at first a force equivalent to the weight of the columns of mercury, I K, I' K', in *aid* of inspiration. This force is exactly equivalent to the elastic tension of the lungs, C C', at the commencement of inspiration, and represents the normal thoracic resilience (excentric), and renders the first portion of that act easy and effortless. If, however, I wish to expand the lung further to the point of extreme inspiration, I shall have the balance of mercury—i.e., the thoracic resilience (concentric)—against me.

Now, what has all this to do with the subject immediately before us—viz., the conditions present in pneumothorax?

In certain diseases of the lungs—emphysema, pulmonary œdema, pulmonary congestion—the lungs swell more or less, and lose their *residual* contractile power—i.e., the resilience of the thoracic wall and diaphragm becomes less and less opposed by the relaxed lungs, and the thorax thus gradually assumes a position of partial expansion which would be represented by the two surfaces of the mercury, I and H, I'' and H', becoming level. Up to this point, however, we should have *no intra-thoracic pressure*.

These diseases are usually pretty symmetrical, and do not disturb the position of the mediastinum, E F, which is held balanced between the contending elasticities of the lung and thoracic wall on each side.

But in certain unilateral diseases—pneumonia, pleuritic effusion, and pneumothorax, and particularly in the two latter—the position of the mediastinum (and therefore of the heart) is most importantly affected. The lung in pneumonia is but slightly enlarged by the exudation, and the expansion of the chest is correspondingly inappreciable. Let us at once, then, consider the changes effected by the occurrence of pneumothorax. If the lung (C') ruptures, it at once collapses; and the thoracic resilience (I' K'), being thus set at liberty, at once expends itself. This state of things is equally well represented if, in the schema, I produce pneumothorax by opening the cock (B'). The bag (C') collapses, and the mercurial surfaces (I H) become level (*i' h'*). But observe what happens further: the bag (C) in the opposite chamber partially collapses too, the column of mercury (I K) becomes less raised (*i k*), and the mediastinum (E F) becomes convex towards the chamber (A), represented by the dotted line in the diagram. These are *instantaneous* occurrences. So, in the living subject, at the moment of the occurrence of pneumothorax, and before any pressure recognisable by a manometer occurs, a notable and instantaneous displacement of the heart takes place. Here are the diagrams of three cases of pneumothorax in which very marked displacement of the heart has been observed, yet in which no intrathoracic pressure existed. In most cases of pneumothorax, however, the opening in the lung is more or less valvular; air is drawn in by deep inspiratory movements, but is unable to escape, and thus considerable intrathoracic pressure and increased displacement of the mediastinum may arise, as may be shown in the schema. In fluid effusions into the pleura the displacement of the heart takes place gradually, but *pari passu* with the effusion. Thus the position of the apex is a sure index of the occurrence and degree of the effusion. I can demonstrate this point to you very readily on the schema by simply dipping the tubing attached to B' into water before opening the stopcock. As the fluid more slowly enters the air-chamber (C') the lung collapses, and the mediastinum becomes displaced as before, only more slowly.[2]

The clinical fact I want now to bring home to you from this demonstration is, that displacement of the heart, all important as a sign of effusion, whether of air or fluid, in the pleura, is not necessarily a sign of intrathoracic pressure, and therefore, even when considerable, is not alone sufficient to call for relief by paracentesis.

[2] I have quite recently seen a work on Pneumono-Dynamics (January, 1878), published by Dr. G. M. Garland, of Harvard University, in which the influence of lung elasticity in modifying the physical signs of pleuritic effusions is demonstrated by a series of very able and interesting experiments. The author's experiments are concerned with liquid effusions into the pleura, and are mainly directed to explain the curved lines of dulness (or flatness, as Dr. Garland prefers to term it), of advancing and receding effusions, and the arched position of the diaphragm (accounting for the semilunar space of tympanitic resonance of Traube) preserved even in cases of considerable effusion. A due consideration of Dr. Garland's experiments and conclusions cannot fail greatly to amend the views still too generally held respecting the conditions within the chest which obtain in health, and their modification in disease.

Lecture
ON
METALLOSCOPY AND METALLO-THERAPY APPLIED TO THE TREATMENT OF GRAVE HYSTERIA.

Delivered at La Salpêtrière, Paris, December 30th, 1877,

BY PROFESSOR CHARCOT.

(Continued from page 82.)

I WILL now speak of metallo-therapy, which may be called upon to modify, some day, the method of therapeutics which I have just described to you.

What is metallo-therapy? I shall be brief on the subject, but I hope to be able to say all that I know in connexion with it.

First, we must distinguish external metallo-therapy from internal metallo-therapy. External metallo-therapy is the first in date. It consists in applying metals on the bodies of sick persons. Internal metallo-therapy, on the contrary, consists in the internal administration of metals, the previous external application of which has produced certain significant results. So that, as you see at first glance, there is, as it were, an abyss between the two kinds of metallo-therapy. Presently we shall be able to judge whether this is simply apparent or real.

Before entering further into the particulars of metallo-therapy I must say something of metalloscopy, which is, so to speak, its preliminary and preparatory part. I will consider the employment of metalloscopy and metallo-therapy only in connexion with hysteria, although, according to M. Burq, they may be applied to other diseases. Take a case of hysteria to be treated by metallo-therapy, and the question is to find out a metal which will produce certain phenomena in the patient, and which, according to M. Burq, is consequently the metal suited to the condition of the patient. Thus metalloscopy is nothing but a search for a metal which will have a special action on this hysterical patient, and more particularly on the phenomena of amyosthenia and anæsthesia which she presents. All these facts, as well as the theoretical idea connected therewith, are due to M. Burq. It is true that formerly metals were applied to hysterical subjects for therapeutical purposes, but no system had been constructed, and it was not known that there were metals which could exert a specific action suited only to a certain number of cases. How is it possible to make out this special and appropriate metal? First, you try the metal which most commonly succeeds in modifying certain hysterical phenomena, and this metal, according to Dr. Burq, is iron. Then you test successively the other metals—gold, copper, zinc, tin, &c.—if you have failed with the first. The experiment is carried out in the following manner:—A patient with left hemianæsthesia, for instance, is taken, and by running a needle through the skin you find that there is no sign of sensibility. Then you apply to the anæsthetised side, generally on the arm, a piece of metal—gold, for example. There is no need of any special apparatus. If you apply gold, you may take two or three napoleons tied to a string and maintain them in contact with the skin. This is what you afterwards notice. If the patient is sensitive to the metal selected (in this case we suppose it to be gold), after a short time, varying from a few seconds to fifteen or twenty minutes, the patient will tell you that she feels her arm numbed, and then, if you prick the skin with a needle in the neighbourhood of the metallic application, you notice that sensibility begins to return. It is the first stage of the successive disappearance of the abnormal phenomena, and, amongst others, of anæsthesia. You notice also that the skin has got red in the neighbourhood of the application, and the punctures, which were bloodless before, begin to bleed freely. Furthermore, if, before the application, you make the patient squeeze a dynamometer, you find a very low figure, 30 or 40 pounds, perhaps, as hysterical anæsthesia is always accompanied by amyosthenia. But after the metallic application you will see the patient mark 60 or 80 pounds with the dynamometer. She has consequently acquired the strength of a man. Amyosthenia disappeared with anæsthesia. These are facts which we have repeatedly demonstrated in the presence of MM. Luys, Dumontpallier, a Commission of the Société de Biologie," and a great many other medical men who took an interest in our experiments (amongst them Claude Bernard, Béclard, Bert, Bouley, and Vulpian).

Now, either you continue the experiment after the recurrence of sensibility or you do not. If you go on—I mean, if you keep the metal applied to the skin—you will soon see a very singular phenomenon, to which I call your special attention. If you continue to prick the skin with a needle you perceive at a given moment that the sensibility which had returned has again gone off. Anæsthesia shows itself once more with its previous character, and is sometimes even more intense than before the application of metal; so that it happens that, whereas there was only analgesia before the application, you may notice complete anæsthesia after the experiment. This is a phenomenon which you will witness under other circumstances and in an independent form. M. Burq has called this anæsthesia "*l'anésthésie de retour.*" If, on the contrary, you take away the metal as soon as you have obtained the recurrence of sensibility, this sensibility persists for several hours, and sometimes for one or two days. Moreover, the sensibility becomes general. Thus, you had seen sensibility return only in the arm; you soon see it extend over all the side of the body which was affected with hemianæsthesia before the experiment. But this is only a temporary phenomenon, and the patients soon relapse into anæsthesia.

Another phenomenon that I will show you presently, which was unknown to M. Burq, and which is of a character to demonstrate that all the phenomena which I am now relating cannot be explained by the condition English physiologists sometimes designate by the name of expectant attention,[1] is a phenomenon which I will call transfer phenomenon (*phénomène du transfert*).

Several English colleagues have assisted at these metalloscopic experiments of Dr. Burq. They are well acquainted with them, and admit their reality, only some of them are inclined to believe that they constitute facts of expectant attention. As you know, if an observer concentrate his attention on any given spot of his body, and fancy that some subjective phenomenon must occur there, this is enough to produce a likelihood of the real occurrence of that phenomenon. If you think of an itching which may occur on any part of your arm you will very likely feel a real itching on that part. Our *confrères*, therefore, think that the phenomena of sensibility which we observe in hysterical subjects during a metalloscopic application are facts of this kind. I do not think that their theory is applicable in this case; but the objections of distinguished observers must always be taken into consideration. It is not possible for me, at the present moment, to undertake a regular refutation of the explanation which has been proposed. I shall content myself with indicating a few arguments which seem to be opposed to their theory.

I shall instance in the first place patients in private practice who were seen for the first time, and who showed themselves, when subjected to these experiments, sensitive only to gold, others only to zinc, others again to copper, &c. It is difficult to suppose that they make a deliberate choice of a metal used, and I must add that at least the majority of them are naturally quite ignorant of all that concerns the effects of metalloscopic applications. But amongst the facts opposed to the theory in question, none is perhaps more important and convincing than the transfer phenomenon. Let us take a patient affected with left hemianæsthesia, and completely sensible in her right side. You apply gold to the left arm, and you find that sensibility returns under the influence of the metal. Well, if you examine the sensibility in the portion of the right arm corresponding exactly and symmetrically with the spot of the left arm where you have applied the metal, and where sensibility has returned, you find that in this given spot you have developed complete insensibility. Thus, a sort of balancing, or of displacement of sensibility, has been produced; and this is certainly one of the most singular

[1] Consult Dr. Tuke's valuable book, "The Influence of the Mind on the Body."

phenomena revealed by metallic applications. Such is the transfer phenomenon, which was discovered solely by chance, and which patients can neither invent nor simulate.

There is another phenomenon which you will soon witness on many patients I shall present to you, and which bears the same signification as the preceding one. It is a fact connected with hysterical amblyopia to which I called your attention in my last lecture. You know that in hysterical subjects there exists amblyopia on the same side where you find anæsthesia. One of the characters of this amblyopia is achromatopsy, or a narrowing of the field of vision in respect to colours. The narrowing may extend to such a point that the patient loses all notion of colours, and sees objects only with the appearance presented by a sepia painting. Moreover, this particular fact must be noted that the colours disappear according to a mathematical order. Thus violet first disappears, then green, then red, then yellow. Blue is the last, and the patients continue to see it until the completion of the phenomenon, and when they have lost all notion of the other colours. This is a phenomenon, I should say, which an hysterical patient can scarcely guess or be acquainted with. It happened to myself, though I have for a long time been well acquainted with this phenomenon, to make a mistake in remembering the order of colours, which is, as you observe, different from the one presented by the spectrum. Here is an hysterical patient affected with hemianæsthesia and amblyopia of the left side. You remark that with the left eye she has lost all notion of colours. We know that this patient is sensitive to gold; we have proved it on a previous occasion. We apply a plate of metal to her left temple. A quarter of an hour is allowed to elapse. We now pass papers of different colours before the eye which is affected with achromatopsy. And now you see that the perception of colours is coming back according to the regular order. You see it is blue she first discerns, then yellow, then orange, next comes green, and violet is the last she perceives. You must watch narrowly in order to catch all the phases of the phenomenon, as sometimes the reappearance or return of sensibility to colour, produced by the metallic application, takes place with great rapidity. As you see, this is a very demonstrative experiment which generally succeeds very well, and which we have repeatedly verified.[1] I must, however, remark that some patients present an exception to the rule in this sense, that the notion of red returns regularly to them before that of yellow and blue. But, as I say, this is really an exception; at any rate, it may be asserted that, according to the regular order, green and especially violet are the colours which return the last. If you now remove the plate of metal you will find in a few moments that perception of colours will disappear in the following order: first violet disappears, then green, then red, then yellow; blue persists till the last; finally this also disappears, and the eye returns to the condition in which it was when the patient was presented to you.

Here is another hysterical woman, who has been under treatment the last few weeks, and in whom all the symptoms of the disease—whether by the influence of the treatment or not, I do not know—have been remarkably amended. She has no longer any hemianæsthesia, and has lost all her convulsive fits for a long time. Is she completely cured? Has she ceased to be under the influence of the diathesis? Is she not exposed to a recurrence of her nervous ailments under the action of the first passing emotion? Some observations which we have recently made lead us to think that there exists perhaps a criterion for judging the question, and the fact, if we are not mistaken, is one of importance for the future of the patient. If you remember, this patient has proved sensitive to gold, and she has been treated, apparently successfully, with that metal. Well, we shall now apply some gold pieces to the left arm, this side of her body having been the one originally affected with anæsthesia. Fifteen or twenty minutes elapse after the application, and we then find that the patient complains of discomfort, that she gets drowsy, and presently seems ready to fall asleep. We prick her arm with a needle, and we see that sensibility, which was normal before the application, is now almost completely abolished. There is cause to believe that the patient is still under the influence of the diathesis, or in other words, that she is not yet entirely cured.

(To be continued.)

[1] The experiment was repeated at a late sitting of the Société de Biologie, M. Bert, Professor of Physiology at the Faculty of Sciences, being present on the occasion.

ON THE MEANS OF PREVENTING THE FORMATION OF CYSTO-PHOSPHATIC DEPOSITS.

By SIR HENRY THOMPSON, F.R.C.S.,
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THE operation of lithotrity is occasionally followed by chronic cystitis with painful symptoms, and by frequently recurring production of the cysto-phosphatic deposits previously described. This condition may persist for a long period, and it may sometimes never wholly disappear. The numerical proportion of these unsatisfactory cases to those which are wholly successful is happily small; and even that may probably be diminished by the exercise of judgment on the part of the operator, and by his conformity to certain rules in operating. There are two points to which it is necessary to pay special attention in order to avoid the unfortunate results in question. The first is, not to apply the crushing operation to any stone of a size beyond that which may be termed strictly moderate, a term which it is difficult to define, but which is designed as a caution against regarding lithotrity as desirable for calculi of large size; the second is, not to delay unnecessarily subsequent repetitions of the sitting when the stone has once been attacked by the lithotrite.

These rules are established by practical experience of the operation; but the correctness of the principles enforced is also exemplified by the pathological observations described in the preceding paper. That which has happened to patients who are troubled long after the operation with recurring concretions is, without doubt, a serious injury to the mucous membrane of the bladder, permitting a phosphatic deposit to adhere to some portion of its surface. This deposit increases by aggregation, and is detached in some form as a concretion, which produces symptoms relieved only by its removal. The process is repeated periodically, sometimes with lengthening intervals of time, and with a tendency to cease, if due care be taken, although the term of recovery is often a long one. In other cases, the tendency steadily increases, and the opposite condition follows.

In speaking of injury to the mucous membrane, I by no means imply injury through the use of instruments. Little harm occurs from the modern lithotrite in delicate and careful hands, a remark which does not apply to instruments of early construction. With the latter, injury was often inflicted on the bladder, and strong objections were long entertained to the operation on that account, and very justly so. The causes of injury to the membrane already described as resulting in loss of polish and in roughness, which attracts phosphatic precipitate, are threefold.

First: This morbid change may be caused by the long residence in the bladder of any calculus, particularly one with harsh, uneven surface, and so may have already taken place before the patient seeks relief from the surgeon. In this stage, whatever may be the composition of the stone, the enveloping crust is phosphatic, and the symptoms are severe. Such a condition is no doubt best met by lithotomy, under almost any circumstances.

Secondly: The bladder being healthy, an operator may crush a stone, say of uric acid, but of a size which, although quite within the mechanical power of the lithotrite to crush safely, is still too large to be disposed of in four or even five sittings. There is then some risk that from much contact between the sharp angles of broken stone and the mucous membrane of the bladder, which must take place, abrasions commence, all of which do not heal, and the inner coat is left, at the conclusion of the process, bruised, sore, and slow to recover the natural condition. This might probably have been regained after two or three sittings; but four, five, or six have been more than the membrane could sustain with impunity. With a stone of this size also it is probable that lithotomy would offer equal, if not better, chances of a successful result.

Thirdly: The bladder being healthy at the outset, and the stone not necessarily being large, but one well adapted for successful treatment by lithotrity, the operator may per-

mit considerable intervals of time to elapse between each sitting. He may do this in the hope of diminishing irritation or inflammation resulting from the previous sitting, desiring not to arouse more disturbance, as he may think, by again applying the lithotrite; and many days may be allowed to elapse in an attempt to combat the existing troubles by rest, medicine, baths, &c. Meantime there is prolonged contact between the rough fragments and the mucous membrane, and damage to the latter is surely taking place. The best remedy in such circumstances is again to crush and so reduce the irritating fragments to fine débris, which, moreover, is largely removed at the same time. I have often seen urine which had been purulent and bloody for days become almost clear within four hours after the use of the lithotrite. At every point of contact between the numerous sharp angles of broken fragments and the delicate lining of the bladder, a minute ulceration commences, and gives issue to a little blood; no sooner are the fragments crushed than the wounded points rapidly heal, and the bleeding ceases. But if the intervals between each crushing are prolonged, dangerous contact is prolonged also, and by repetitions of this error the bladder is brought into a condition in which more or less permanent mischief is sustained, and the phosphatic trouble commences its chronic course. In order to avoid this, then, I repeat that it is essential not to prolong the intervals between each sitting beyond two or three days, unless there is some more important reason for doing so than the presence of cystitis, which is, on the contrary, a ground not for delay but for action. Indeed, no occurrence except repeated attacks of fever or severe orchitis should postpone the use of the lithotrite when the operation has once been commenced.

The next practical question for consideration is the treatment of the bladder itself when phosphatic deposits and concretions are formed there, and show a tendency to remain, or, after expulsion, to be again produced.

The first condition indisputably necessary to success is that the organ, if incapable of emptying itself, should be artificially emptied by the patient in the easiest manner, as often in the twenty-four hours as his comfort demands, and never less than twice a day, however small the quantity left behind. Next, as organs thus affected are by no means always quite emptied, even by the catheter, a small quantity of warm water should be injected once, twice, or thrice daily after catheterism, to wash out the remaining urine if any such there be, and the phosphatic precipitate which will be certainly found therein. For this purpose the four-ounce indiarubber bottle with brass nozzle and stopcock is the best instrument; one-third only of its contents is to be injected at a time, and this quantity is to run out before the succeeding third is introduced. To the water should be always added either carbolic acid in the proportion of one grain to the ounce, or the solution of permanganate of potash (Condy's) six or eight minims to the ounce. Either of these disinfectant solutions, the first-named being perhaps mostly preferable, should be employed as preliminary to all other injections; they are not in the slightest degree irritant to the bladder, and they deodorise and cleanse the interior. Further, and this is a fact of some importance, carbolic acid does not decompose any solution of metallic salts which it may be desirable to inject immediately afterwards. It ought not to be necessary to add, in passing, that all instruments should be placed, before and after use, in a bath of carbolic acid solution, but double the strength of that mentioned above. This, of course, relates to all instruments which are at any time or for any purpose to be introduced into the urinary passages.

The bladder being thus kept in good sanitary condition, the next consideration is, what agents are to be employed to promote healing action in the diseased mucous membrane? The best are salts of silver, copper, and lead, very weak solutions of which should be used at the first occasion of applying them, watching carefully the result before augmenting their strength, and doing so very gradually. The nitrate of silver should at first not exceed in strength the proportion of one grain to four ounces of distilled water; even one to six ounces is preferable if a patient is more than usually susceptible. It should always be preceded by a cleansing or deodorising injection, to remove from the surface to be acted upon the muco-pus which is coagulated by the solution of silver, and tends to hinder contact with the agent. This injection is to be employed in the gentle manner directed above for the first application. If very little inconvenience follows, a slightly stronger solution should be used after an interval of two or three days, always avoiding an increase in strength sufficient to produce any severe or long-continued pain.

Sulphate of copper should be applied in the same proportion—viz., one grain to six or four ounces of distilled water. An acetate of lead solution of the same strength is a valuable agent, to be used daily, or even twice a day, by the patient himself; but the sulphate of copper, like the nitrate of silver, is to be repeated only every alternate or third day, according to results. It may be remarked here that in the treatment of chronic vesical hæmorrhage by astringent injections, such as the solution of matico, or of perchloride of iron, the same rule in relation to the carbolic acid solution, and to the manner of injecting, should be followed. In the last-named condition, also, the temperature of the injection may be lowered to 40° or 50° F., while, in relation to the subject under consideration, the temperature should not differ greatly from that of the body.

For the removal of small concretions, the eight-ounce elastic bottle, with a large brass nozzle overlapping a No. 10 or 11 gum catheter (described in THE LANCET of Jan. 8th, 1876), produces an excellent current, not only inwards but outwards, by expansion of the bottle; and Mr. Clover's aspirator, so useful for débris in lithotrity, or for removing last fragments, is equally valuable here. But the object of the injections above described is not to remove deposits from the bladder, but solely for the purpose of acting on the mucous membrane, so as to hinder their formation, and aid in producing a healthy surface, to which they will no longer adhere. By systematically carrying out the plan laid down as soon as they appear, whether after lithotrity or in connexion with chronic disease of the bladder and prostate, the complaint can generally be greatly mitigated, and sometimes it is effectually cured.

Wimpole-street.

ON CHANGES IN THE NERVOUS SYSTEM IN DIABETES.

BY W. HOWSHIP DICKINSON, M.D., F.R.C.P.,
PHYSICIAN TO ST. GEORGE'S HOSPITAL AND TO THE HOSPITAL FOR SICK CHILDREN.

(Concluded from p. 118).

OTHER remarks may be briefly dismissed. I describe with measurements and figures a sufficiently obvious condition of enlargement of the canal of the cord. Far from asserting that this is present in every case, it is related as especial to two, and is none the less a fact because it did not come under the observation of Drs. Taylor and Goodhart. The dilatation may not have been present in their cases, or, if the cords were examined in but a few places, it may have been overlooked. The condition does not occur in every region any more than in every case. And the same remarks apply *mutato nomine* to other points of criticism. I describe a condition which is too obvious to admit of any but wilful misrepresentation; it does not come under the notice of Drs. Taylor and Goodhart, and is therefore ignored, as though no observations were to be accepted without a certificate from them. I described and represented in an accurate woodcut a collection of blood-corpuscles outside their proper vessels. The state of things is sufficiently obvious. If I cannot be trusted to have seen it when I say I have, I have spent much labour to little purpose. I will here add that not only have I seen extravasated corpuscles under the microscope, but I have in diabetes seen with the naked eye extravasated blood under the pia mater close to the fourth ventricle.

A condition which is pathologically akin to extravasation meets with a better reception. The accumulation of blood-crystals outside the bloodvessels—a sign probably of corpuscular escape, though not necessarily by rupture—is somewhat grudgingly admitted.

Some of the remarks upon which I have commented would have had more weight had their authors taken the very obvious precaution of looking at the preparations which they were about to criticise. I need scarcely say that they are, and have been, heartily at the service of any inquirer. To present to those who have not seen the testimony of

those who have may be to strain too far the faith of these nihilistic pathologists, but to others I may say that I have taken many opportunities in the course of the inquiry of referring specimens to observers practised in nervous pathology, and am enabled to state the opinion of Dr. Lockhart Clarke, a paramount authority on such a question. Dr. Clarke has examined representative specimens, both early in the inquiry and also since the publication of Drs. Taylor and Goodhart's paper, and says, in a note addressed to myself called forth by their criticism:—"On examining your preparations of brains in cases of diabetes, I have no hesitation in saying that the alterations in structure which I observed are of a morbid character." Dr. Clarke then refers to some changes which he had noticed in the calamus scriptorius in the same disorder.

To what I have said I need add but little. Healthy sections can be cut in plenty from diabetic brains. It is easy not to find, and Drs. Taylor and Goodhart have examined the brain in diabetes with a minimum of result. They say, indeed, candidly enough, that "only in a few of their cases was the brain examined microscopically throughout." But, nevertheless, they testify to alterations which are a sufficient refutation of their own conclusion: "We do not say there is *no* nerve-lesion in diabetes—*we have not found any.*" Strangely enough, however, in view of this conclusion, they did find and honestly relate significant evidences of disease, some of which are thus regarded even by themselves. Enlargement of the bloodvessels appears to have frequently come under their notice. In half of their cases they note that the vessels of the cord were thick-walled and the septa thickened. With regard to the perivascular spaces, though their evidence is suggestive that they have passed as healthy conditions which not I alone, but other pathologists, regard as morbid, yet even here their observations are not wholly negative. Enlargement of the perivascular canals and proliferation of the sheath came within their observation, though not repeatedly, and they note the presence of blood-crystals in these situations, sometimes in such quantities as to point without doubt to morbid action. In illustration, I suppose, of the variation of healthy structure, they relate that in one of the cords they examined "*the vessels were thick-walled though not large, and the bands of connective tissue forming septa in the white columns were unusually thick. In the medulla and cerebellum many vessels contained blood, and both here and elsewhere through the brain were found vessels with the surrounding perivascular tissue studded with yellow and orange glistening masses. Only occasionally was any vessel seen which was sufficiently irregular in diameter to suggest dilatation; the perivascular spaces were not anywhere disproportionately large.*" Here is a record, not quite complete probably, but perfectly conclusive, of long-standing vascular disorder—hyperæmia and its consequences. It would have aptly fallen into my series and added to the strength of my conclusions. With Drs. Taylor and Goodhart, however, it counts for nothing.

As to gelatinous matter, about which I have said enough, Drs. Taylor and Goodhart found what they thus describe where I did in two instances. If it be, as they suppose, normal, it is to be explained why it was not found in all.

I will not dwell upon the miliary sclerosis, as it is called, or, more properly, miliary degeneration, which I found in one case, and Drs. Taylor and Goodhart in three. I am glad that my opponents are at one with me in any particular. In a paper "On Chorea" in the Medico-Chirurgical Transactions for 1876 I ventured to express an opinion that this change was not connected with fibrosis, but was a mere disorganisation of nerve-matter. Each spot, indeed, is but a heap of ruins; and, though it is possible in some instances to trace the destructive process as a morbid result of perverted vascular action, yet there is reason to suspect that something very like it may ensue from post-mortem change, together with the action of alcohol. Drs. Taylor and Goodhart likewise consider the change to be better described as degeneration than sclerosis, though perhaps the term "disorganisation" is more suitable still. In the circumstances their corroboration of my observation in this particular is more equivocal than in other respects.

Not so as to the cribriform perforation of the central white matter. This is a sufficiently definite morbid state, and, though not found only in diabetes (I have seen it strongly marked in connexion with imbecility), nor in diabetes constantly present, yet it has significance as one of the many changes alike in kind and place which belong to the disorder. It relates to the perivascular spaces, and if, with Dr. Durand Fardel, whom Drs. Taylor and Goodhart quote, we attribute its origin to congestion, it is but one example more of the process of which other stages and results have been explained.

I have myself examined the preparations which have been thus described; Dr. Taylor was kind enough to send them to me in answer to a request on my part. They are carefully made, and bear out not unfairly the description which has been given of them, though I would take leave to add a little to what has been said. The sections—cut, I fancy, rather at hazard than directed by naked-eye examination—display a minimum of change; yet the enumeration is suggestive. Putting aside "miliary sclerosis" as of doubtful significance (a condition which I noted in six of their cases), I am prepared to say that the sections shown to me in proof of the absence of perivascular change give evidence of its presence in six out of eight cases, the preparations illustrating which were such as to allow conclusions to be drawn from them. The most obvious changes were: in the brain, enlargement of the perivascular canals, as in the cribriform condition; the existence of nervous débris within them or of altered nervous matter at their edges, the equivalents of the gelatinous material which I found more abundantly in similar situations (in instance of this change associated with a large deposition of hæmatine, I would venture to point to a canal in the corpus striatum of one of their subjects, Burgess by name, notwithstanding that they say of this part of the brain, and in particular reference to this case, that sections through it "appeared perfectly normal"); over-nucleation of the arterial sheath, and the accumulation of blood-crystals about it;—in the cord, deep excavations at the bottom of the anterior fissure, none the less morbid because found in other congestive conditions.

To conclude these too lengthy remarks—but details of criticism could but be answered in detail,—I think I have shown that the observations in question, though, as not recent and as relating to a branch of knowledge now advancing with exceptional rapidity, they may well need revision, yet are for the most part neither false nor fallacious, and that however scanty the credit they may have received from these critics, who have not thought it necessary to look at the objects upon which they were about to comment, yet that the judgment of those who have not seen is directly contradicted by the judgment of those who have; and further, that the observations of Drs. Taylor and Goodhart, though perhaps not richly representing the subject, corroborate in important particulars those with which they have been placed in antagonism.

It is superfluous to say that I do not presume to have exhausted the pathology of diabetes, or to have done more than establish its claim to a place among nervous disorders. The minute morbid anatomy of the nervous system is but just coming out of darkness into twilight, and it may be long before we get any view of its finer lines. In diabetes, in tetanus, and in chorea there are certainly changes in nervous function, and possibly in nervous structure, which precede and underlie the rough injuries, which are all that have yet come under our notice. But there are enough, at least, to show the place of the storm. The mischief in diabetes, as in the other disorders which I have mentioned in juxtaposition with it, is seen in the altered relation of the bloodvessels to the tissue, in the several shapes of hæmorrhagic and other exudation, perivascular injury, or erosion, and possibly the spotted grey disorganisation which, when distinctly morbid, is as distinctly related to changes of the same character. These changes have different degrees and stages; none are exactly repeated in every case, though there is evidence in each of changes of the same nature. The changes may want constancy, but they do not want significance.

But the points in question are matters more for observation than argument. Time will bear its fruit. In the meanwhile I have obtained permission to arrange some preparations at the rooms of the Medical and Chirurgical Society—and hope to do so after the meeting on Feb. 20th—for the judgment of those who are interested in the subject.

Chesterfield-street, Mayfair, W.

CORK-STREET FEVER HOSPITAL, DUBLIN.—The committee of this institution, at a meeting held on the 24th ult., elected the following medical staff for the ensuing year:—Permanent Physicians: C. F. Moore, J. W. Moore. Temporary Physicians: Reuben Harvey, William Stoker. Surgeon: James H. Wharton.

ON THE USE AND ABUSE OF PESSARIES.

BY GEO. GRANVILLE BANTOCK, M.D., F.R.C.S. ED.,
SURGEON TO THE SAMARITAN FREE HOSPITAL.

(Concluded from p. 122.)

THE mode of application of the pessary is, in my opinion, a most important matter. I regard it as essential that we should in all cases, if possible, obtain positive indications that the instrument is efficient. This is best done by placing the patient on her back, and maintaining the uterus in position by means of the sound until the pessary is in its place. If the sound retains its position when let go, then we know that the uterus is properly supported, while the slightest deviation at once tells us the reverse, when the pessary must be removed, and its shape or size altered as required. I cannot agree with Dr. Braxton Hicks that it is of no consequence that the uterus should at once be accurately replaced. He thinks we should be satisfied with a partial adjustment, leaving the accurate replacement for a future opportunity. Theoretically at least this is strange teaching, and is not in keeping with his usual scientific precision. My experience is decidedly opposed to it, for in proportion to the failure in accurate replacement is the want of success in relieving the symptoms.

Difference of opinion exists as to the mode of action of Hodge's pessary. For while some hold that the support is directed through the fundus, others regard it as the result of action on the cervix. I accept the latter view in the great majority of cases, for my best results have been obtained with the long S-shaped instrument (I am here speaking of *retroversion*). It is undeniable that in some cases the posterior cul-de-sac of the vagina is so large and distensible that it is possible to afford support through the fundus; but the cases are so rare as to constitute the exception which proves the rule. I have repeatedly demonstrated in the out-patient department of the Samaritan Free Hospital that backward pressure on the cervix brings the uterus forwards, especially when aided by a suitable position, such as the knee-shoulder position, and in cases of pregnancy I have taken advantage of this fact in adjusting or readjusting a pessary. This results also from the fact that the uterus is a rigid body (in cases of *version*). This pessary, then, acts in the first place by stretching the vagina longitudinally. The result of this is that the posterior cul-de-sac is tightened, and the cervix is drawn backwards, the body moving proportionately. The necessity of having an accurately proportioned pessary must be at once apparent, and this is well illustrated by the first case I have quoted. Moreover, a consideration of the anatomical relations of the parts leads us to the same conclusion. If anyone will take the trouble to look at, say, Savage's Plate VIII., Fig. 2, or Plate XI., Fig. 3, it will at once be seen how impossible it is, in any ordinary case, to bring pressure to bear on the fundus. Hence, as I shall show, the uselessness of vaginal pessaries in cases of *retroflexion*.

The evidence as to the value of Hodge's pessary, in all its modifications, is overwhelming, and it is now too late to take refuge in systematic pooh-poohing. And while it is capable of doing much good in skilful hands, it must not be forgotten that it is equally capable of much injury in the hands of the ignorant or careless. I am afraid it is a fact that many men pass through our medical schools, destined for general practice, without ever having seen a pessary applied. This I say as a result of experience.

There are other instruments besides Hodge's pessary of great service in uterine displacements, notably Zwanke's pessary. The flat ovoid boxwood pessaries are, I would fain hope, things of the past. Of Meadows' compound I shall have to speak further on. Zwanke's pessary is, however, an instrument of great capabilities in cases of prolapsus in the young, and affords great comfort to the aged. The facility with which it can be applied and removed by the patient is a great recommendation. It is not infrequent among the poorer class for a woman to get prolapsus as the result of getting up too soon after confinement. The easier and shorter this is, the more likely is it to happen, both being dependent on the large size of the pelvis and the dilatability of the soft tissues. I have seen the uterus in such a case, measuring four inches and a half, become reduced in three months to its normal size, and I have seen such a case cured by subsequent pregnancy with proper precautions during the puerperal period.

The abuse of the pessary may arise from several causes, which may be enumerated as follows:—(1) Improper selection of cases, (2) use of an ill-fitting instrument, (3) misuse of a properly-fitting instrument.

1. As to the improper selection of cases. In the front I place the employment of vaginal pessaries in cases of *flexion*, whether ante or retro. In the case of retroflexion, the tightening of the posterior cul-de-sac tends, by drawing back the cervix, as I have already shown, to double the uterus still more, and any effect produced on the body will simply be a rotating movement. What do we find at the bedside? The posterior transverse bar passes up behind the cervix to its junction with the body (which is the site of flexion); the tightening of the cul-de-sac drags the cervix still more backwards; the pessary slips into the hollow of the flexion, especially if the instrument be not straight; and the body of the uterus topples over, aggravating the previous condition. Let us assume that the pessary has been applied while the uterus is kept in position by means of the sound. If now the sound be left unsupported, it, slowly it may be, but surely, turns round until the body of the uterus hangs over the transverse bar, behind which it can be felt by the finger. Let the sound be removed before the uterus has been allowed to fall back, and then let the sound be reintroduced, or rather, I should say, let the attempt be made, and I unhesitatingly affirm that failure will be the result. I have repeated this so often in deference to the generally received views that I have no doubt about the matter. The views I now hold are the result of the many failures I have experienced, and in proportion as I have acted on the knowledge thus obtained so have I been more successful. At a recent meeting of the Obstetrical Society I took occasion to express my surprise that the advocates of the vaginal pessary in cases of *retroflexion* were still so numerous. In this I am not without supporters.

Nor in the case of anteflexion is the result much more satisfactory. Look at Dr. Graily Hewitt's Plate 78 (second edition), and it will be seen that the highest point of the instrument is just at the point of flexion. When the bladder is empty, what is there to prevent the uterine body from bending over the instrument? But, it may be argued, this pessary relieves the dysmenorrhœa. True, it does in some cases, where there is no contraction of the internal os, by converting a flexion into a version, by the action, already described, on the cervix. But where constriction exists, it only aggravates the dysmenorrhœa, as I have proved. Here, then, is the case for an intra-uterine stem, either with or without previous division.

There is another condition which I find nowhere described, but which I have several times observed, and in which no vaginal pessary yet devised could be of any service.

S. H——, aged twenty-three, single, came under my care in the out-patient department of the Samaritan Free Hospital on April 6th, 1875. Menstruation began at the age of sixteen, and for the first few years was not sufficiently painful to draw special attention to it. For the last ten months she complained of a constant bearing down in the hypogastrium, and pain in the left groin. The periods recurred with a clear interval of three weeks, and usually lasted four to five days. For a day or two before the flow she suffered from pain of a special character. For the first day of the flow the pain was especially severe. After that it gradually decreased, and finally ceased with the flow. There was a free glairy discharge, and there was marked congestion of the cervix. She also complained of frequent frontal headaches. Her appetite was tolerably good, and the bowels regular, but she had frequent attacks of what she called "spasms." On examination I found the hymen intact, and the vagina very small. The os uteri was directed against the anterior vaginal wall, and the cervix felt somewhat flattened. The body of the uterus could be felt through the posterior cul-de-sac for some distance, so that I at first thought I had before me a case of retroversion. Firm upward pressure in front of the cervix, however, revealed the presence of the fundus uteri there, and the finger detected the well-marked concavity formed by the anteflexion. Thus the uterus was anteflexed and retroverted at the same time, the body lying low down in the hollow of the sacrum. Backward pressure on the cervix caused the uterus to revolve, so that the fundus was more readily felt in contact with the back of the finger.

Having observed this condition before, I now recognised the true nature of the case. The patient was contemplating marriage, and requested me to advise her. I had no hesitation in putting my veto on such a proceeding, being well aware of the injurious consequences of the married state in cases of anteflexion. I kept the patient under treatment for over three months—viz., till July 20th, with some relief to the general symptoms. The congestion was decidedly less, and the leucorrhœa had wellnigh ceased, but the deviation continued in no way altered. She returned on October 29th, having relapsed into her former state, and, after a little persuasion, I got her consent to the local treatment which I formerly proposed. She accordingly entered the hospital on Dec. 13th, just after a period. Next day I introduced, with great difficulty, and not until I had pulled the uterus straight, a fine laminaria tent. On the following day it was well dilated, and half extruded from the uterus. I gave her a day's rest, and on the 17th I introduced one of my stem pessaries without difficulty, and left the uterus in good position. On the 20th, as the patient was feeling uncomfortable, I again examined her, and found the uterus retroverted, so that the bulb of the stem was near the vaginal outlet. I then introduced a long S-shaped Hodge's pessary, apparently with the desired result, and the patient was relieved. On the 31st the patient got an attack of ulcerated sore-throat, with considerable fever, through which she passed satisfactorily. During this attack, be it remembered, she was wearing the two instruments. On Jan. 1st the menses appeared, and disappeared on the 4th. All she felt was a little aching in the back. On the latter day I made the following additional note: "Patient now sitting up; no pain of any kind." Jan. 7th: Uterus a little inclined backwards and to the left side; no discomfort in any position. On the 8th she returned home. On Jan. 21st she again came to the hospital, where she was seen by Dr. Kuhn, of Geneva, who confirmed my diagnosis as to the existence of the slight displacement above mentioned.—Feb. 11th: Last period, after an interval of three weeks, and for about three days. No pain during the flow, but an aching and fulness in the groins for about a day before. Continues to follow her usual occupation in the Government Clothing Establishment, and is not conscious of the presence of the instruments.—March 10th: Menstruated again from 1st to 4th without pain; quantity moderate. The uterus being still in the same position, I took out the Hodge, made it nearly straight, and reintroduced it. At the end of a fortnight I removed both instruments.—April 29th: Uterus threatening to return to its old state. Introduced a Meadows' compound stem, which kept the uterus in admirable position. I, however, made the following note: "Probably too large."—May 3rd: Complaining of pain down the thighs, particularly the right. Substituted a smaller instrument, which produced no discomfort. I saw the patient several times up to August 10th, when I removed the pessary, leaving the uterus in very good position. Her general health was then very good, and her headaches had quite disappeared. I recommended her to get married without delay, and this was effected on the 18th of November. She menstruated regularly, with an interval of three weeks, *without pain of any kind*, and for the last time in the end of January, 1877. During her pregnancy, which she expected to terminate at the end of September, she enjoyed most excellent health. Her own words are (referring to the latter months), "I was never better in my life." This patient was delivered of a fine female child on Oct. 16th, 1877, and is now in excellent health.

Nor is it advisable to employ a pessary during the existence of acute inflammatory action in the uterus. Acute symptoms should be first subdued by the usual methods according to circumstances.

Sometimes retroversion is complicated with a fibroid in the posterior wall, and in such a case the vaginal pessary is not well borne. In these the fibroid is of more consequence than the retroversion.

There are not a few cases of retroversion in which there is great difficulty in replacing the uterus, and this is usually attributed to adhesions within the peritoneal cavity. These do not, as a rule, bear the pessary, or if they do, the version is in no degree influenced. In fact, the most probable result is the conversion of a version into a flexion in the way already pointed out. I have, however, employed Meadows' compound stem in some of these cases with decided benefit. Such a case I have now under my care in the person of a young lady, who has been much relieved by it. In no case has any untoward result followed the use of this instrument. But they are unsatisfactory cases at the best.

2. There is no more frequent cause of failure in obtaining the full value of the pessary than in the "use of an ill-fitting instrument." It has frequently happened to me to find that the first instrument, after apparently being right when first introduced, has been inefficient. The test of this is the facility with which the sound can be introduced. It has also frequently occurred to me to have to remove pessaries introduced by others, and, had I not known the value of the instrument, I might have been induced to endorse the views of Drs. Bennet and Atlee. In these cases the removal of the instrument has been necessary because of both the improper size and shape. Sometimes, however, there can be no doubt the instrument becomes too small in consequence of the stretching of the vagina. I know this has happened in my own hands. Case 4 is an example.

The habit of employing hard vulcanite pessaries is apt to contribute to this misuse; they are not kept in sufficient variety, and are difficult to alter. I have now for some years been in the habit of using those made of pewter. They are obtainable from Krohne and Sesemann in nine sizes. They are light, easily altered, and produce no irritation. I have known these instruments worn continuously for over a year without undergoing any change; and they have this advantage, that the presence of excoriation or ulceration is at once revealed by the blackening of the metal, which can be seen without removing the instrument.

Mrs. B——, aged thirty-nine, came under my care at the Samaritan Free Hospital in February, 1873. She had been only recently married, and was complaining of bearing down, which had come on since her marriage. I found that this was due to retroversion, and I introduced a pessary, which at once gave relief. After a few weeks I dismissed her, and had forgotten her case. About twelve months afterwards she returned, wishing to know why she had missed her period. I was careful not to use the sound, and merely satisfied myself by digital examination that the pessary was in a good position. The patient had no complaint to make of pain or even discomfort, and the instrument did not interfere with her in any way. It turned out she was pregnant. In the course of the fifth month I removed the instrument, which was as clean as if she had only worn it for a day or two. In due course she was delivered of a living child, which, however, survived only a short time.

3. The misuse of a properly-fitting instrument, or, in other words, of an instrument which, properly applied, would be found efficient. This can only arise from ignorance both of the mechanical principles and the anatomy of the parts involved. When a medical man is first shown a pessary (I am speaking of facts within my own observation), he asks how it is to be applied, apparently having no conception as to which is the antero-posterior direction and which the supero-inferior aspect.

In October, 1872, Mrs. C——, aged thirty-two, came under my care. She had been married ten years without issue, and for a considerable time, some years, had suffered from constant pain in the region of the uterus, of varying intensity, increased by walking or even standing, bearing down in sacral region and hypogastrium, and inability to lie on right side. The menses were regular, lasting from seven to ten days, very free, often requiring twenty napkins, and painful. Micturition frequent and painful. On examination, the uterus was found so retroverted that the os pointed to the vaginal outlet, and the left ovary could be felt distinctly. I introduced a Hodge's pessary. The next morning she found herself lying on the right side, and generally experienced great relief. On her return home into the country she bore a long railway journey remarkably well, in marked contrast to her journey to town, but on her way from the railway she had the misfortune to be thrown out of the conveyance, and felt that the instrument was no longer of service to her. She called in her usual medical attendant, who removed the instrument, and replaced it a month after. Seven months afterwards she returned to town, when I found that the instrument had been put in *doubly reversed*. This case has proved a troublesome one, as this condition generally does in the barren woman. Up to Jan. 16th, 1877, she continued to wear her instrument with the greatest relief, and on that day she reported that she felt very well, that the periods were regular, without any pain whatever, usually lasting about a week. She had no leucorrhœa, and the uterus was in very good position, admitting the sound without pain or difficulty in the normal direction. She preferred wearing the instru-

ment, and still wears it. During the greater and latter part of the time she wore the pessary in its reversed position; she had a nearly constant hæmorrhagic discharge, and I found considerable congestion, with slight excoriation, for which I had to employ depletion on several occasions.

I have selected this case as much for the purpose of showing the great value of the pessary as of proving my proposition. The case was very troublesome because of the concurrent disease of the uterus.

With such evidence as I have here presented, added to the recorded testimony of a host of observers, is there any longer any ground for opposition to this method of treatment? That instruments have been abused no one is more ready to admit than I. I plead guilty to this charge, but only in the pursuit of knowledge and in my endeavours to cure those who have committed themselves to my care. But my failures have served to reveal the rocks ahead, and while I fearlessly assert that in no case have I left the patient worse than I found her, I can equally affirm that in the vast majority I have been able to render signal service.

I will not be uncharitable enough to suggest a probable cause for the unreasoning wholesale denunciation indulged in by some, but leave it to my readers to furnish their own explanation.

Mount-street, Grosvenor-square, W.

NOTE ON THE

TREATMENT OF PUERPERAL PYREXIA.

By JAMES GREY GLOVER, M.D.

IN using the expression "puerperal pyrexia" I intend to include all cases of high temperature not associated with obvious external inflammation, as in the breast, or with obvious infection from the common infective diseases. Presumably, the local lesion is uterine or periuterine; for in all the cases I have in my mind there has been more or less pain in and tenderness over some part of the uterus, with a good deal of abdominal distension. There has been also generally a quick pulse, varying from 100 to 130; some degree of wandering; and cessation of lochial discharges and the secretion of milk. The temperature in all the cases has been taken carefully with the thermometer, and has varied from 104° downwards. There can be no difference of opinion as to the disagreeable significance of such clinical phenomena, than which none are more harassing and unpleasant to a medical practitioner. I would say, in passing, a word in praise of the thermometer as a most invaluable guide as to the course of such symptoms. It is even more valuable than the pulse, as more absolute and less under the influence of passing circumstances. It would be more satisfactory to give a pathological definition to such cases. But that is not my object, even if it were within my power, as it is not. There is this good reason for not speaking dogmatically about their pathology—that when treated in the way I am about to indicate they very generally get well, and do not give an opportunity for post-mortem investigation. To complete the clinical description of such cases I would say that in none of them has suppuration taken place. They have got well without any discharge of pus, simply in the way of, generally a gradual, sometimes a rapid, fall of temperature and of the frequency of the pulse, a gradual subsidence of the tympanites, and disappearance of the pain and tenderness of the uterus.

As my object in this note is strictly practical, I may be excused for putting almost into the form of a prescription the treatment under which, I am confident, the best results will be obtained. First, a dose of quinine and iron every three or four hours. The following is a good form in which to give these: quinine, two grains; tincture of iron, ten minims; spirits of chloroform, ten minims; syrup, half a drachm; distilled water, an ounce. Secondly, a dose of opium, every three, four, six, or eight hours, according to the pain, without ipecacuanha, which may set up sickness, and without calomel, which may set up unnecessary irritation of the bowels. It is astonishing how kindly women with uterine pain take to opium, or would be so if the fact were not so familiar in practice. The dose of opium, say half a grain, is best given in a small pill. Thirdly, a large linseed or bran poultice over the stomach, repeated every three or four hours. A little laudanum in it often adds much to its soothing effect. Fourthly, and very particularly, vaginal injections, at least twice a day, of warm water, with a little Condy's fluid in it. The diet should consist chiefly of good beef-tea or chicken-broth, with generally a small regulated allowance of brandy, say a dessertspoonful every three or four hours. Sometimes the brandy is best given with arrow-root.

Of course I do not mean that this treatment will save every puerperal woman who goes wrong pyretically within a short time of her delivery. But I believe it will best control local lesions, and the febrile condition, and the tendency to blood-poisoning, which forms the chief risk of such cases. The old treatment by general and local bleeding, mercurial action, and purgatives, seems to me entirely superseded by more recent views of the nature of these cases and experience of the action of other remedies. Even laxatives have to be given carefully, or they do harm by irritating sore and sensitive parts in the pelvis, though it is right to add that the above treatment is apt to produce constipation, which should be obviated, as the acute symptoms subside, by enemata and other gentle measures.

Compton-terrace, N.

A Mirror OF HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

DISTENDED BLADDER AND SIMULATED RECTAL STRICTURE FROM THE IRRITATION OF A CONTRACTED MEATUS.

(Under the care of Mr. BERKELEY HILL.)

J. B——, aged forty-three, was admitted July 11th, 1876. Had gonorrhœa at fourteen and at sixteen years of age; each attack lasted twelve months. For the last six years he had had frequent calls to make water, with straining and small streams. An instrument had never been passed to the bladder, though three years ago ineffectual attempts were made by a medical man. From Dec., 1875, to April, 1876, he had attended as out-patient at one of the London hospitals, for the "stricture," and for difficulty in passing his motions.

On admission, the patient complained of pain and straining in micturition, and of difficulty in defecation. The fæces were small and flat. The urethra, measured by the urethrometer, was equal to No. 22 (French scale), through the meatus; beyond that point, No. 35 (French) passed easily up and down the penile part. In the rectum, the finger found no induration or contraction of the gut, and the lower part was free from fæces, but the base of the bladder was distended. There was a dull note on percussing the suprapubic and left inguinal regions. The meatus was incised till No. 35 French bullet-sound could pass in and out freely. A flexible coudé catheter was passed, and more than a pint of urine drawn off. When the bladder was empty, a soft, irregular mass behind it became distinct. The patient was ordered to remain in bed, and take a sharp purge, which acted copiously. Henceforth he was much relieved, and by July 18th had lost his old symptoms altogether. He passed urine without straining, and could hold it all night; his bowels acted easily; the tumour of the rectum was no longer there. Patient discharged.

On Oct. 3rd the patient called at the hospital. He was quite free from the troublesome straining, and otherwise well.

When drawing attention to the foregoing case, Mr. Hill narrated the following example of the extent to which the urinary bladder can be expanded by long training. In this instance, twelve pints of urine had accumulated, and were mistaken for malignant disease of the liver and ascites.

On March 4th, 1876, he (Mr. Hill) was called to Mr. ——,

aged forty-six, in whom it was said his homœopathic medical attendants had diagnosed fatal liver disease, and had recommended him to settle his affairs as he had not long to live. Alarmed by this intelligence, the patient consulted Dr. Murchison on March 3rd, who had declined to give an opinion until the bladder had been emptied. This operation was at first declined, but, as the patient's sufferings increased rapidly, application was again made to Dr. Murchison, and he referred the friends to Mr. Hill. On reaching the patient's house Mr. Hill found him much distressed by great distension of the abdomen. Having been for years of sedentary habits, he had accustomed himself to hold his urine for long periods. There had never been a stoppage or even difficulty in passing urine. He habitually rose once every night. The bowels were fairly regular. Since May, 1875, swelling of the abdomen had gradually come on, with loss of appetite and restlessness. No special pain. For three weeks before he had been obliged to micturate every hour, and passed a teacupful at a time of clear urine. A prominent dull-sounding tumour occupied the middle of the abdomen as high as the pit of the stomach, resembling a gravid uterus. In the flanks there was a clear note on percussion. No anasarca of the lower extremities; no jaundice. A flexible catheter slipped along the urethra to the bladder without the slightest hitch, and pale urine was let off to the amount of seven and a half pints (150 oz.) The catheter was then withdrawn, while urine still flowed. As the urine ran off, a jack towel was drawn tightly round the body, and afterwards pinned. The patient was warned not to sit up or leave his bed. The abdominal tumour, much smaller, was still plainly felt below the umbilicus. Next morning, twelve hours after the first evacuation, the patient had passed a very comfortable night, and had taken two eggs in a teacupful of milk, but no other food or drink. A silver catheter then passed without hitch to the prostate, where a slight obstruction was felt that was easily overcome, and five pints (100 oz.) of clear urine were drawn off. This done the tumour had quite disappeared. The finger in the rectum found no hæmorrhoids; the prostate, perhaps slightly larger than usual, was not tender or hard. The liver dulness did not descend below the margin of the ribs, and the flaccid abdominal walls enabled the abdomen to be explored easily. There was no tumour. The urine was pale, clear, free from albumen or pus, neutral or slightly acid, specific gravity about 1012. The patient remained for some days without power or desire to micturate, but quickly learned to pass a No. 18 French flexible catheter, and to draw off his urine twice daily. On the third day he resumed business, feeling quite well, but rather weak. In a fortnight voluntary micturition began to return, and was gradually completely restored. In October, 1877, a year and a half afterwards, the patient was enjoying good health.

In his remarks on these cases, Mr. Hill observed that both showed that a trifling cause (not the same in both cases) might produce very distressing and even dangerous symptoms, of which the origin, from its apparently trifling nature, might be overlooked. Organic stricture near the meatus urinarius, when depriving the outlet of only a small part of its natural width, could excite reflex irritation, which showed itself in divers ways: neuralgia of the loins, hips, testes, and lower extremities; paraplegic symptoms, sexual incompetence, and other forms of nervous disturbance. Perhaps one of the most common was difficult micturition, manifesting itself in the mode often thought diagnostic of organic stricture of the bulbous part—namely, frequent call; slow, small, forked stream; pain in passing and dribbling after the flow of urine. In such cases attention may be entirely directed to the deeply situated contraction of the urethra, while no means are taken to ascertain the presence of, or to widen, the anterior stricture, because, not being drawn closely together by spasm of the surrounding muscles, it offers no impediment to the small instrument necessary to pass through the deeply placed contraction. Such deeply placed contraction may be due to muscular spasm acting on a scantily developed organic stricture at the bulbo-membranous part. This spasm will speedily subside if the anterior coarctation be removed, and the deeply placed stricture will then be found to be of only moderate narrowness, insufficient to excite the difficult micturition previously present. In the case above narrated the bladder was habitually more or less distended, the stream was slow and small, and the symptoms simulated either perineal stricture or prostatic deformity of the neck of the bladder. Further, the rectum, from disturbed nervous stimulus, had become irregular and inefficient in action, and thus suggested the existence of stricture of the gut.

In the second case, most probably the cause of distension was the habit of delaying to void urine, and thus gradually the overtired and enlarged bladder lost the power of complete contraction, until rest by regular artificial evacuation had restored its muscular contractility. It is true that some slight coarctation of the urethra might have existed, for which, in the emergency, search was not made; but, as the patient could himself at once easily pass No. 18 French (No. 10 English) catheter, the stricture, if it existed, must have been very slight; nevertheless, such a cause could possibly have assisted in producing the distension, though more probably irritability of the bladder in that case would have been an early instead of a late symptom. The point of greatest interest in this case was the recovery of the patient after this prolonged enormous distension. Not infrequently, perhaps most commonly, in these cases of excessive accumulation of urine, in from twenty-four to seventy-two hours after the bladder is emptied, inflammation of the bladder and pelves of the kidneys sets in, accompanied by diffused suppurative nephritis; and in ten or fourteen days the patient dies. That this result did not follow here was perhaps due to the fact that the over-distension had not been preceded by years of renal irritation from narrow stricture, and thus slow interstitial nephritis had not lowered the vitality of the organs below the point whence they could recover from disturbance of the circulation and conditions of function.

WEST LONDON HOSPITAL.

TWO CASES OF ACCIDENTAL POISONING BY A SOLUTION OF ATROPIA; RECOVERY.

FOR the following interesting notes we are indebted to Mr. E. Wilson, house-surgeon.

On Jan. 17th, at 8.30 P.M., C. G——, aged forty-three, and F. G——, aged thirteen, mother and daughter, were admitted in consequence of having drunk, between them, about an ounce and a half of a lotion containing two grains of sulphate of atropia to the ounce of water, about three hours previously. They had emptied the lotion-bottle into a teacup, scratched off the poison-label, and used the bottle for another purpose. Subsequently they drank tea out of the teacup containing the lotion, forgetting its presence. The symptoms were as follows:—Pupils widely dilated, insensible to light; gait staggering, the patients being unable to stand alone; there was great thirst, and the elder patient had incontinence of urine. They both talked and laughed wildly, but answered questions readily. The intellect was confused, both patients fancying they were still at home, and attempting to arrange furniture. So far as could be determined, the mother had taken the larger dose of the drug. Thirty grains of sulphate of zinc were given in each case.—8.45: No vomiting; symptoms the same. Sulphate of zinc repeated in the same dose in each case.—9.0: No vomiting; symptoms the same. Two drachms of wood-charcoal given to each.—9.15: The charcoal repeated in the same dose.—9.30: Both patients appeared to be becoming comatose. Both were galvanised about the head, face, and hands, which roused them, and the child vomited.—9.45: The charcoal repeated in the same dose. The child is better. Mother still very violent; incontinence of urine has ceased, and she now strains a good deal to pass water, but voids little. Thirst and dilatation of pupils continued in both cases.—10.15: Put to bed, the child being quiet, but the mother so violent that it was necessary to tie her down. The mother had twenty drops of tincture of opium.—12.0: Both quiet. The girl's pupils respond slowly and slightly to light. One ounce of castor oil to each.

Jan. 18th.—4 A.M.: The mother tried to escape from the hospital, and was brought back to bed with difficulty, partially conscious and very violent; bowels have not acted in either case; pupils of mother not altered by opium. Half a drachm of tincture of opium was given.—8 A.M: Child almost recovered. Mother more sensible; pupils slightly less dilated, and responding a little to light. She complains greatly of headache, passes water naturally and without pain. Bowels have not acted in either case. Castor oil repeated in both.—1 P.M.: Child recovered; bowels have acted. Mother's bowels still confined; less headache; quite rational now.—5 P.M.: Both left the hospital recovered.

CHILDREN'S HOSPITAL, PENDLEBURY.

DOUBLE CONGENITAL INGUINAL HERNIA; STRANGULATION; HERNIOTOMY; LIGATURE OF THE NECK OF THE SAC; RECOVERY.

(Under the care of Mr. T. JONES.)

HENRY M——, aged sixteen months, was admitted on July 10th, 1877, with a right inguinal hernia, which had been in the scrotum for three days. The following history was obtained from the mother. The child had been the subject of a double hernia since three months old. About the beginning of 1877 the tumour on the right side became inflamed. The child was, in consequence, taken to the Manchester Infirmary, and there supplied with an order for a truss; this truss, however, never prevented the bowel from descending.

On examination, a tense tumour was found on the right side of the scrotum, which, from the appearance and the history of its formation, was diagnosed as a hernia. The tumour was reduced by taxis under chloroform, and in order to prevent its re-formation a spica bandage was applied.

On the 12th and 14th of July a large left scrotal hernia descended; each time it was easily reduced, and a double spica bandage adjusted.

July 22nd.—The hernia on the right side again appeared, and became strangulated. Taxis was tried, but proved insufficient; herniotomy was therefore performed. The ordinary operation was done eight hours after symptoms of strangulation had set in. The bowel having been returned (after the sac had been opened), the neck of the sac was carefully isolated from the spermatic cord and firmly encircled with a catgut ligature. The wound, which was treated throughout strictly according to Lister's plan, healed in five days, without any suppuration.

On August 1st the hernial swelling on the left side again made its appearance, and formed a much larger tumour than it had ever done before.

Attempts at reduction, both without and with chloroform, having failed, and evidence of strangulation being present, herniotomy was done on this side, and the neck of the sac treated in a similar manner to that on the right.

Healing did not take place so quickly on the left side, for, although antiseptic precautions were observed, yet suppuration occurred and continued for some days. This may possibly be attributed to the child's restlessness, which caused the dressings to fall off. The wound was, however, cicatrised in about a fortnight, and the child was discharged from the hospital on August 26th. At that time there was no trace of protrusion in either inguinal region, and in both canals considerable thickening of the tissues could be detected.

The child has been under observation ever since, and when last seen (Dec. 5th) there did not seem to be any indication of either rupture reappearing.

Remarks.—The operation of tying the neck of a hernial sac was suggested and carried out many years ago by Schmueller, and likewise by Langenbeck; the former removed the portion of sac below the ligature, the latter left the sac undisturbed after ligaturing the neck. This procedure probably has no advantages over the method introduced by Mr. Wood. However, when it becomes necessary to perform an operation to return a strangulated gut in a congenital rupture, a ligature may with advantage and propriety be placed around the neck of the sac, as close to its mouth as possible. The ligature will cause adhesive inflammation and the obliteration of the sac at the point ligatured.

It is impossible to predict what the future of this case will be. The time since the operation is so short that it is impossible to say whether there will be a renewal of the protrusion or not.

NEWCASTLE-ON-TYNE INFIRMARY.

TWO CASES OF RENAL TUMOUR.

(Under the care of Dr. BYROM BRAMWELL.)

CASE 1. *Large solid tumour of the left kidney; systolic bruit heard over its surface; death.*—R. H——, aged forty-nine, a coal-miner, was admitted on October 22nd, 1874, suffering from an abdominal tumour. He stated that when thirty years of age he had an attack of rheumatic fever. With this exception he enjoyed good health until three years ago, when he began to suffer from dyspepsia and hæmaturia. For three months he passed large quantities of blood in the urine. The blood was generally equally diffused through the urine, but on several occasions clots became impacted in the urethra, and had to be drawn out by the fingers. Eighteen months before admission he noticed a lump the size of an orange in the left side of the abdomen. The tumour gradually increased in size, the urine from time to time was bloody, and the man occasionally suffered from severe pain along the course of the left ureter. The family history was particularly good.

On admission he looked ill, and was much emaciated. A large, dense, weighty tumour occupied the left side of the abdomen. It extended inferiorly to within an inch of the left anterior superior iliac spine; internally to within an inch of the umbilicus; posteriorly quite to the spine. It exactly corresponded in shape to an enormous kidney. Its anterior edge was ill-defined and deeply notched, its inferior margin round and smooth. Its surface was slightly irregular. It could be handled freely without causing pain or uneasiness. There was faint resonance over the inner or umbilical half. Elsewhere there was absolute dulness on percussion, and a feeling of great resistance. There was also dulness over the lateral aspect of the left chest as high as the level of the nipple. This thoracic dulness was continuous with that over the tumour. A soft systolic murmur was audible over the greater part of the tumour. The urine was scanty, high-coloured, acid, sp. gr. 1022. It contained a trace of albumen, and deposited a copious sediment, which, on microscopical examination, was found to consist of amorphous urates, phosphates, pus-corpuscles, round and squamous epithelium cells. The blood was normal. The pulse and temperature were normal; the appetite poor; the tongue clean; the bowels regular. A faint systolic murmur was audible at the cardiac apex. The pulmonary sounds were slightly accentuated. The patient complained of shortness of breath on exertion, and of palpitation. The size of the heart was normal. The cardiac murmur was quite distinct from that heard over the tumour.

The patient remained two months in hospital. During that period he had one or two slight attacks of hæmaturia. He was discharged on December 20th, improved in general health, *in statu quo* as regards the tumour. He died at his own home a year afterwards.

Post mortem a large solid tumour of the kidney was found.

The case is interesting chiefly from the fact that a murmur was heard over the tumour. Mr. T. Holmes has recorded a similar case in the Transactions of the Pathological Society.

CASE 2. *Large cystic tumour of the left kidney; aspiration; recovery.*—James T——, aged ten years, was admitted on the 30th March, 1876, complaining of vomiting, and of a swelling in the left side of the abdomen. His mother stated that the lump was first noticed a year ago. It was then about the size of an orange, and was situated in the upper and left side of the abdomen. He had always enjoyed good health, but had occasionally, since the tumour was noticed, suffered from vomiting. The vomiting came on about ten minutes after eating, and the vomited matters consisted of the food taken and of green bile. Later on the vomiting became frequent. The tumour increased considerably in size, but it had never been painful. The boy had resided for the past three years in Newcastle; before that he had lived in Ireland. The family history was excellent.

On admission the patient was a well-developed, healthy-looking lad. On examining the abdomen a prominence was seen in the left hypochondrium; on palpation the prominence was found to be due to the presence of a large tumour, the limits of which were as follows: inferiorly it extended to within an inch and a half of the left anterior superior iliac spine; internally, to the umbilicus; posteriorly to the spine. Its surface was smooth and elastic. Its inner border, which was anything but sharply defined, presented a well-marked concavity, resembling the hilus of an enlarged kidney. An indistinct feeling of fluctuation was perceived in the most prominent part of the tumour. There was no hydatid fremitus. On percussion there was dulness in the left infra-axillary, hypochondriac, iliac, renal, and upper half of the lumbar regions. The blood was normal. The urine was pale in colour, neutral, sp. gr. 1020. It contained a trace of phosphates, but no albumen. The other organs and systems were normal. A cystic tumour of the left kidney, probably hydatid, was diagnosed.

On April 4th chloroform was administered, and the tumour was examined carefully. The most prominent point was then punctured with the pneumatic aspirator. Thirty-two ounces of fluid were withdrawn. The fluid was very pale in colour, neutral, sp. gr. 1008. It contained one-eighth albumen, abundant chlorides, traces of urea and uric acid. The sediment, which was very copious, consisted of blood-corpuscles, lymphoid cells, large round cells about the size of renal epithelium, cells containing reddish-brown granules, and an amorphous deposit resembling urates. After the fluid was withdrawn the tumour completely disappeared.

The patient never had any symptoms. On April 6th the urine was strongly acid, pale yellow in colour, sp. gr. 1022. It contained a trace of albumen, and on microscopic examination the deposit was found to consist of pus-corpuscles and red blood-globules. On April 13th the patient was discharged. He presented himself several times afterwards. When last seen, in July, 1876, there was no indication of a tumour.

This case is interesting because of its rarity, and because of the successful result of the treatment.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Spina Bifida cured by the Injection of Iodine.—Sayre's Treatment of Spinal Disease.—Erythema Multiforme.

THE ordinary meeting of this Society was held on the 25th ult., Mr. Callender, F.R.S., President, in the chair. The proceedings were of considerable interest. Mr. Berkeley Hill read a paper upon the results of Dr. Sayre's method of treating spinal curvature, illustrating his remarks with a large number of patients wearing the plaster-of-Paris jackets. The various apparatus employed were shown by Mr. Mayer. An interesting case, also shown to the meeting, of spina bifida treated successfully by the injection of Morton's iodo-glycerine solution, was read by Mr. Gould. At the close of the meeting, Dr. Tilbury Fox showed a remarkable instance of erythema multiforme.

Mr. A. PEARCE GOULD read notes of a case of Spina Bifida successfully treated by the Injection of Iodine. The patient was born with a tumour the size of a hen's egg, situated over the last lumbar and upper sacral vertebræ; this slowly increased in size, whilst the skin over it thinned. When eighteen months old he was brought to the Hospital for Sick Children. The tumour was then the size of a cricket-ball, sessile, with all the usual characters of spina bifida. An opaque band was seen along the middle line of the lower three-fourths of the tumour. There was no paralysis or other deformity. The head was large, the fontanelle was widely open, becoming bulged when the tumour was compressed. On Sept. 18th, 1877, the tumour was tapped with a small hydrocele trocar at the upper part, just to one side of the middle line. Six drachms of fluid were removed, and half a drachm of Morton's iodo-glycerine solution was injected, the opening being closed with collodion. For the first few days all promised well; the tumour appeared to be firmer, smaller, and less translucent, but at the end of a fortnight it had returned to its former condition. On Oct. 5th the operation was repeated, one drachm of the solution being injected. But this was attended with the same result. On November 5th it was injected for the third time, two and a half ounces of fluid being removed, and two drachms of the solution injected. The sac became very tense, red, hot, and tender; fluctuation persisted for a week, but on the ninth day a marked change was noted; the tumour was smaller, flaccid, elastic, but not fluctuating, and it did not become tense when the child cried. The wall of the sac became gradually firmer and thicker, and the tumour shrank. On December 14th, there being distinct fluctuation in the now thickened cyst, it was again tapped, and emptied by the removal of six drachms of a yellow, viscid, highly albuminous fluid; it was evident that the communication with the spinal canal was completely obliterated. One drachm of the iodine solution was injected into the sac, and firstly manipulated and then allowed to escape. The tumour since then gradually shrank, and now presented a thick pad of skin, quite dense at the lower part, softer above, where there was a small spot, which still fluctuated; from this Mr. Gould withdrew about half a drachm of yellow turbid fluid two days ago. There was no paralysis. The fontanelle was closing up. After each operation the temperature rose to 101° to 102·8°, and continued above the normal from two to six days; there was no convulsion or other sign of interference with the nervous system. The after-treatment consisted in thickly smearing the tumour with collodion each morning, and supporting it with wool and a bandage. The tumour evidently communicated very freely with the spinal canal, and most probably contained the spinal cord or nerves. Mr. Gould had examined twenty-three specimens of spina bifida and had found nerves in the sac twenty times, two cases in which this did not occur, and one case in which it was doubtful. The nerves or cord generally occupied the middle line, the position of the opaque band observed in this case. The absence of paralytic symptoms by no means favoured the opposite view. The fluid removed at the first three operations was colourless, becoming slightly turbid on standing, specific gravity 1071, faintly alkaline, containing a trace of albumen, chlorides, and phosphates. With Fehling's copper solution it gave no reaction; but Dr. Dupré analysed it, and, after concentration, was able to get distinct evidence of the presence of sugar. Because sugar could not be detected in spina bifida fluid, and that escaping from the skull in cases of fracture, it must not therefore be supposed to be absent, unless the tests be applied to the fluid after evaporation. Dr. Morton's treatment had now been applied several times, and in twelve out of fifteen cases with success. As to the value of the glycerine, Mr. Gould stated that on pouring some of the "iodo-glycerine" on to some of the cerebro-spinal fluid in a narrow glass it was found to sink to the bottom at once, and not mix with it; and he was of opinion that the same thing occurred in injecting the tumour, for the fluid that oozed from the puncture after the injection was quite unstained with iodine, and the action of the injection had been much more potent at the lower part of the sac. Although the mode of cure resembled that seen in the radical treatment of hydrocele, there was an important difference in the two conditions, the one being a closed sac, the other communicating with a canal full of fluid. As to the fear that inflammatory material would press injuriously on the contained nervous material, it was noted that in none of the published cases had consecutive paralysis been observed; and a specimen of Sir A. Cooper's, in St. Thomas's Hospital Museum, described in his paper in vol. ii. of the Medico-Chirurgical Transactions, showed that the radical cure might take place in this way when the cord was in the sac, without nervous symptoms. Mr. Gould had considerable difficulty in stopping the oozing of the cerebro-spinal fluid, which was so dangerous if allowed to continue.—The PRESIDENT, in remarking upon the importance of the case and its successful issue, suggested that the escape of fluid after tapping might perhaps be obviated if the puncture were made as it were subcutaneously, and to one side of the tumour, so as to allow of compression being subsequently applied over the canal made by the puncture. He thought also that the duration of life of patients affected with spina bifida was a point of interest. Cases are recorded in which such patients attained the age of twenty or thirty years, and a few years ago he had met with an old gentleman who in his youth was under the care of Sir Astley Cooper for spina bifida. Sir Astley had a metal plate fitted over the tumour, and from time to time the dimensions of the plate had to be increased to fit the enlarging tumour. This patient lived to the age of seventy-three years, and when seen by Mr. Callender he was suffering from some want of control over the bladder and rectum, as well as some loss of power in the lower limbs. Sir James Paget had never heard of a survival to such an age.—Mr. HOWARD MARSH bore testimony to the admirable manner in which Mr. Gould had dealt with the case, which was one of a class in which usually a most unfavourable prognosis would be given.—Mr. T. SMITH considered Dr. Morton's solution of iodine a great gain, as obviating the ill-effects so frequently met with when the aqueous solution was used in these cases. The explanation given by Mr. Gould—viz., that the iodo-glycerine liquid does not diffuse into the cerebro-spinal fluid, was a satisfactory one, and explained the good results obtained by this

mode of treatment. Mr. Smith doubted whether paralysis once established was ever recovered from by curing the spina bifida, owing to the difficulty in obtaining satisfactory evidence of the state of innervation of limbs in very young infants. The same difficulty also told in another way, for it prevented the determination whether paralysis after operation was due to injury or not. In one of his own cases the child's mother asserted that the operation was followed by loss of power in the legs, which was subsequently recovered from. As regards the question of survival, raised by Mr. Callender, he believed there was a case recorded in France of a man who lived to be cut for stone. Mr. Smith himself had seen a gentleman, forty years of age, married, in the active practice of a learned profession, who had a spina bifida, of the size of a hen's egg, in the dorso-lumbar region. He had never suffered any bad effects from it, and always got relief from the pain, which came on when tired, by lying down for a few hours at a time. Still, added Mr. Smith, he must say that of all those he had cured when young, their condition was such that, when grown up and old enough to judge, he had no doubt they had "very much better be dead than cured."—Mr. MORRANT BAKER related the case of a child under his care at St. Bartholomew's Hospital a year ago, with a spina bifida the size of a goose's egg. The skin over it was very thin, and Mr. Baker injected a small quantity of Morton's fluid into the sac, taking every precaution. After a second injection the sac appeared to get thickened, and the result promised well. The child, however, has, according to the mother's account, from the time at which the cure commenced, lost sensation and motor power in the lower limbs. Still, as Mr. Smith had said, it is very difficult to tell what power young children may have in their limbs, and it is possible there may have been some paralysis before the operation.—Mr. GOULD expressed his indebtedness to Messrs. Owen, Howard Marsh, and Macnamara, for placing beds at his disposal, and thus enabling him to treat the case.

Mr. BERKELEY HILL brought, for the inspection of members of the Society, a selection of twelve patients with Angular and Lateral Spinal Curvature, for which they were wearing Sayre's Plaster Jackets. In doing this he avoided criticism of the correctness of the theoretical grounds on which Dr. Sayre explained the mode in which the spine was affected, and also descriptive of the method of application, observing that those matters were set forth in Dr. Sayre's Spinal Diseases, &c. (Smith and Elder, 1877). He confined himself to the results which had been gained by six months' experience of the mode of treatment. The cases exhibited that evening had been mainly under his own care, but some were from the hospital patients of his colleagues, Messrs. John Marshall and Arthur Barker. Four cases from the Cheyne Hospital for Incurable Children were exhibited by Mr. James P. Bartlett. The cases comprised examples of angular and lateral curvature of various situations and degrees, some wearing the jury-mast to support a curve in the upper dorsal region, one with lumbar abscess and sinus. The first case, treated in University College Hospital after Dr. Sayre had himself demonstrated his method, was put up on July 13th. The patient immediately lost the pain in her back, which up to that time had been too severe to permit of her walking about or sitting up for more than half an hour at a time; and she went for a walk out of doors of her own accord the same day. Two days later she went into the country till November. She at once discarded invalid habits, and in the latter part of her stay nursed a sick sister. The jacket put on in July was worn till nearly Christmas; it was then removed, and a poroplastic felt corset moulded on to the trunk while the patient was suspended. This did not appear to give sufficient support, as the pain in the back had returned frequently and increasingly. Hence Mr. Hill exhibited the patient wearing her corset—an excellent fit—to show that this material did not embrace the trunk with sufficient immobility to support it effectually. Mr. Hill next read the notes of the second case to which the plaster jacket was applied in University College Hospital, that of July 14th, 1877, by Mr. Marcus Beck. This was a case of very acute character and of well marked symptoms. The patient could not walk fifty yards without his crutches, and only a very short distance with them, on account of the severe pain produced. On being encased he walked out of the hospital easily, carrying both crutches in one hand. One month later he was able to walk nine miles. He wore the shell for three months; it was then removed, and he had remained quite well ever since. Mr. Hill then briefly described the case of the daughter of Dr. Gooding, of Cheltenham, who was encased by Dr. Sayre himself at Guy's Hospital on July 25th, 1877. She had been suffering for eight years from injury to the upper dorsal region, causing collapse of the upper part of the column, great protrusion both backwards and forwards, complete inability to stand or walk, constant pain, and, at one time, paraplegia. On January 23rd, 1878, Dr. Gooding wrote: "She began to improve from the first, and has continued to walk with increasing strength ever since. She has literally had no pain at all. She does her share of play, and goes regularly to school." Mr. Hill then summed up the benefits which six months' experience of the plaster shells had shown. 1. Pain was at once arrested. 2. So far as the spine was concerned, the patient was immediately able to sit upright and to walk about. 3. Control of the lower extremities, when lost or diminished, was rapidly improved or restored. 4. Abscesses steadily closed. 5. The spinal column lost much of its abnormal curve and consolidated in the improved position. 6. In lateral curvatures, a permanent increase of stature was often obtained. 7. Finally, by Sayre's jacket, cure was more rapid and less irksome than by any other method. Mr. Hill remarked that caution was necessary to prevent the patient attempting too much exertion; even when thoroughly supported in the shell, most patients required rest through some part of the day. In conclusion, Mr. Hill mentioned several small modifications in the method of application, which had been found to be improvements. The chin-piece should be more deeply cupped at the chin and well lined with thick felt. The suspending straps should be attached just in front of the zygoma and behind the ear. The axillary slings should be padded firmly and stiffened so as to take the form of the cross of a crutch. To receive adult or heavy patients from the gallows without risk of bending the plaster shell before it had set, Mr. Hill had contrived a table, swinging at its middle like a toilet looking-glass. This, carrying the slack air bed, could be pushed against the patient while suspended; two large hooks were slipped under the armpits and hitched to the top of the table. The patient, thus attached to the table, was freed from the gallows. The table was lowered from the vertical to the horizontal position, and the patient sank without strain or jolt into the slack air bed, which supported the plaster evenly on all sides till it set. Messrs. Mayer and Meltzer, who had constructed the table, had also made a light folding frame to answer the same purpose. To cut up or trim the plaster shells, a small carpenter's dovetail saw and a pair of French vine-dresser's shears were the handiest tools.—The PRESIDENT praised the practical character of Mr. Hill's paper, and the advantage the members had enjoyed from seeing the patients themselves. The same difficulty in lowering adult patients, after the application of the jacket, from the vertical to the horizontal posture, had been met with at St. Bartholomew's Hospital, and he had himself suggested a swinging table similar to that shown by Mr. Mayer.—Mr. T. SMITH thought the table a valuable adjunct. He had seen a good case spoilt in being taken down. In a private house he had found a narrow leaf of the dining table sufficient to answer the same purpose. He had adopted another improvement in substituting air-pads for the cotton-wool between the mammæ and over the abdomen. The advantage of such pads lay in the fact that they could be inflated or emptied at will, each pad being provided with a vent and stopcock. He considered Dr. Sayre's method one of the greatest improvements in the treatment of spinal disease that had been made for many years.—Mr. CLEMENT LUCAS had now pursued the method in twelve cases, four of which were cases of lateral curvature, and had not met with any inconveniences or any instance of pain inflicted in this series. He had, however, to remove the bandage in three cases—once on account of the development of psoriasis over the whole of the surface covered by the splint. This was a case of lateral curvature, and the splint had been worn for three weeks. In another case there was desquamation of cuticle over the covered parts; and in a third he had to remove the bandage in consequence of pediculi. He had not met with any pressure-sores, which he attributed to the bad application of the splint; and he denied the assertion that had been made that the treatment was unscientific and led to disastrous results.—Mr. BARWELL claimed to be the first to adopt the method in this country, and he had now put it in practice in a large number of cases. In only one case had he been obliged to take the bandage off; this was in consequence of difficulty in breathing induced by it in a very young child with a large abdomen. He agreed with Mr.

BEST COPY AVAILABLE

Hill that the spine is never got straighter than it is made by the first suspension. For supporting patients in removing them from the gallows, Mr. Barwell uses a small sofa or sheet. He had substituted a cross-bar instead of a straight-bar, used as a suspender by Dr. Sayre. He did not find it necessary to pad the spinous processes, but whilst the bandage was moist he made a slight interval at each side of the spines. Wool pads in the axillæ and between the mammæ were essential in females. He mentioned the case of a man thirty-three years of age, an asthmatic, and the subject of angular curvature. After application of the jacket he lost his asthma.—Mr. BARKER had found the bandage produce chafing over the spines of the most prominent vertebræ in two cases, both very young children. One was a child two years of age, in whom a small superficial slough formed over the most prominent spine at the end of two weeks. There was no roughness in the corset or vest, the only circumstance being that the pelvis was small and narrow, and the jacket could not get a good grip. In the other a similar result occurred, although the child's general health had much improved. In neither of the cases was any padding placed over the spines or pelvic bones.—Mr. GOLDING BIRD had followed the treatment in eighteen cases, and in all had seen much good and no harm result beyond occasional chafing on the back in some of his early cases. Two were cases of lateral curvature, the rest being examples of Pott's disease, and their ages ranged from two years and a half to eighteen years. In all there was complete relief. He pointed out that the slinging of the patient was the essence of the treatment, and the principle involved was most philosophical, physiological, and anatomical. The deformity, pain, &c., being due to the pressure of the weight of the head on the spine, the result arrived at was that which Mr. Hilton had pointed out should be the aim of treatment in such cases—namely, to afford physiological rest to the part. The introduction of felt &c. departed from the principle, which was that the chest should remain fixed from the moment it was put up. In this method an extending force is used instead of a pushing force, as in all previous modes of treatment.—Mr. B. HILL briefly replied.

Dr. TILBURY FOX showed a man suffering from Erythema Multiforme. The eruption was very copious, involving both forearms and the face; it was in the form of macules, raised patches, and also hæmorrhages, leaving on the forearms extensive brown pigmentation of the skin. In fact, all forms of erythema were represented.

The Society then adjourned.

PROVINCIAL MEDICAL SOCIETIES.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At the last meeting, Dr. Augustus Prichard in the chair, Dr. MARKHAM SKERRITT exhibited specimens from a case of Facial Paralysis from Brain Disease. The patient, a man aged forty-three, was admitted into the Bristol General Hospital on September 9th, and died on November 5th. On admission he had been ill about six months; had first suffered from pain in the head, upon which the facial paralysis had gradually supervened. Severe pain in the frontal and temporal regions was still his chief complaint. Left facial paralysis was complete, except that the orbicularis palpebrarum retained slight power, so that the eye could be partially shut; there was complete deafness on left side, the tongue deviated to the left, and the soft palate and uvula were drawn up to the right. There was no optic neuritis. Electrical reaction was "inverted"; there was no response to faradisation, but contraction on the application of galvanism. There was no paralysis elsewhere, for although some unsteadiness of gait appeared towards the end of life, this was no more than could be fairly put down to the general failure of strength. The patient was rather stupid, and towards the last became a little delirious, chiefly at night. There were no fits. Post mortem, patches of irregular thickening were found scattered over the dura mater; from the under-surface of the right half of the tentorium cerebelli had grown an oval tumour about one inch long and three-quarters of an inch thick, which lay in a hollow on the upper surface of the right lobe of the cerebellum. To the falx cerebri close by was attached a similar tumour about the size of a pea. In the hemispheres, just below the pia mater, were three tumours about half an inch in diameter—one in the left middle frontal convolution, one in the right external inferior frontal, and one in the left inferior temporo-sphenoidal convolution. The dura mater lining the base of the skull was thickened by patches of new growth; the left auditory and facial nerves were embedded in a nodule, which blocked up the mouth of the internal auditory meatus. Both lungs were infiltrated at their bases with a new growth. In the upper part of the right kidney was a tumour about one inch and a quarter long and three-quarters of an inch thick, greyish-white on section, and much firmer and less vascular than the cerebral growths. Microscopical examination showed that these tumours were cancerous—that in the kidney having the characters of scirrhus, those in the brain being encephaloid. In commenting on this case, Dr. Skerritt pointed out the features that led to the diagnosis of implication of the facial at the base of the brain by either chronic meningitis or tumour. That the lesion was on the peripheral side of the nucleus, cutting off the nerve from its nucleus, was shown by the complete paralysis of the "bilateral" muscles (those that generally act with their fellows of the opposite side—*e.g.*, the occipito-frontalis)—the partial exemption of the orbicularis palpebrarum being probably due to some fibres of the nerve being left intact. The "inverted reaction" to electricity pointed to the same conclusion; while a lesion at the base of the brain rather than in the after course of the nerve was indicated by the associated paralyses of other nerves. Dr. Skerritt alluded to the absence of any distinct symptoms referable to the cerebellum, notwithstanding its compression by the tumour. He considered that the primary growth was that in the kidney, while the brain was probably infected from the secondary deposits in the lungs.—Dr. E. L. FOX resumed the adjourned debate on the "Treatment of High Temperature of the Body." He did not advocate the treatment of any but exceptionally high temperatures—namely, those above 105° Fahr., on the following grounds:—That such treatment increases the tendency to relapse, necessitates an increase in the amount of stimulants, and had not been shown statistically to give better results.—Dr. J. Greig Smith gave the results of sixty-four experiments, thirty-two in which quinine in average dose of thirty-five grains, and thirty-two in which the cold bath, had been given. The average fall after the bath was 6° Fahr. in half an hour; after quinine 5·4° Fahr. in 11·8 hours. These were cases of enteric fever.—Dr. Shingleton Smith, in concluding the debate, pointed out the fact that no one has questioned the dangers of pyrexia *per se*, and therefore no one had combated the principle on which the treatment of average temperatures above 103° had been founded. He expressed his conviction that all the difficulties attendant on a systematic treatment of average pyrexia would be easily surmounted, and that the cold bath and large doses of quinine would be found to act beneficially in prolonged moderate pyrexias as well as in cases of hyperpyrexia when immediate reduction of temperature is imperative.

NORWICH MEDICO-CHIRURGICAL SOCIETY.—At the meeting on Jan. 8th, Mr. Joseph Allen, President, in the chair, the report of the committee on Empyema was presented. The committee was appointed in July last, after a paper by Mr. Horace Turner on the treatment of Pleuritic Effusions. A specimen of Invagination of the Descending Colon, from a female child aged four months, was shown by Mr. PRANGLEY. The child lived 114 hours, and after ineffectual attempts at reduction by enemata and inflation, abdominal section was proposed, and refused by the parents.—Mr. C. WILLIAMS showed a specimen of Diverticulum Ilei, two inches in length and one and a quarter inch in diameter, somewhat funnel-shaped, which arose from the whole breadth of the bowel near its mesenteric border. The diverticulum was itself provided with a small mesenteric fold. Mr. Williams pointed out the liability of such malformations to become the seat of disease, as in lodging foreign bodies or fæcal matters; or, owing to the imperfect ligamentous fold connected with the concavity of the diverticulum, it may be the cause of strangulation of the intestine from the passage of a coil through an aperture formed in the fold in question.

MANCHESTER MEDICAL SOCIETY.—The following office-bearers and members of the committee have been elected for the year 1878:—President: Mr. Fred. A. Heath. Vice-Presidents: Dr. Gumpert, Dr. Ransome, Dr. Lloyd Roberts,

Mr. Windsor. Hon. Secretary: Mr. Walter Whitehead. Hon. Treasurer: Dr. J. Thorburn. Hon. Librarian: Mr. C. J. Cullingworth. Committee: Drs. Borchardt, Dreschfeld, Leech, Little, Ross, Simpson; Messrs. Boutflower, Broadbent, Ewart, Galt, Hardie, and Jones.

Reviews and Notices of Books.

The Elements of Therapeutics. By Dr. C. BINZ. Translated by E. I. SPARKS, M.A., M.B. Oxon. London: J. and A. Churchill. 1877.

The Action of Medicines. By ISAAC OTT, A.M., M.D. Philadelphia: Lindsay and Blakiston. 1878.

THE study of therapeutics has undergone during the last ten years a very remarkable change in consequence of the progress of experimental physiology. The application of mechanics to physiological investigation has widened the extent and deepened the range of observation in a way comparable only to the influence of the microscope in anatomy. It is natural that the same means of investigation which has added so much to our knowledge of the action of the organs and systems of the body should be employed to aid our study of the manner in which these actions can be modified by the agents which we employ in our contest with disease. The result is that the groundwork of therapeutical science is being entirely recast. Experiment on animals is made the basis of our study of the action of medicines. An enormous number of facts are being accumulated regarding the effect of various substances in various quantity upon the animal system. Some of these facts throw most important light on the results of clinical experience respecting the influence of drugs on disease. But it must be confessed that the majority are at present without practical application, and constitute an amount of knowledge very difficult for the student to acquire, and still more difficult for him to retain.

This altered aspect of therapeutics is strikingly manifest in the two works before us. The first of these, the Elements of Therapeutics of Professor Binz, of Bonn, has long been a standard German textbook. Clear in style, and compact in substance, it is a convenient clinical summary of German therapeutics of the present day. The various substances used in medicine are classified according to their action. The properties of each are briefly described; then its action, its use in disease, its preparations, and its doses. The work has been admirably translated by Dr. Sparks, of Mentone, and he has made a large number of additions to it, amongst others the introduction of the preparations of the British Pharmacopœia, which are not mentioned in the German edition. He has also interpolated many facts ascertained by English observers, and notices of some substances not in use in Germany. There can be no doubt that the additions which Dr. Sparks has made greatly enhance the value of the treatise. Indeed, we are somewhat disappointed at the original portion of the work. The results of German observation are clearly and carefully summed up, but a very preponderating importance is attributed to the results of experimental research. Whatever effect can be observed in the laboratory is considered to explain every action in disease with which the laboratory results have any connexion, and the possibility that other modes of action may influence the effect is scarcely admitted. Indeed, there is in some cases an evident disposition to ignore the conclusions from clinical observation which cannot be harmonised with experimental results. As an instance may be adduced the following passage:—"We are ignorant of any direct relations between quinia and the nervous system, which might be utilised for therapeutic purposes, although we cannot deny that such may exist. Any direct 'tonic' influence exerted by quinia upon the nervous system is at present purely hypothetical, and unsupported by a single experiment." This is the sole remark on the employment of quinin for the purpose for which, in this country at least, it is chiefly used. Can the method of which we have spoken go farther than this? In a German work it is to be expected that the results of other than German observation should be little noticed. Many of the omissions have been supplied by Dr. Sparks, but there are still some which should be alluded to. The action of apomorphia was discovered and admirably worked out by Dr. Gee, but no allusion to the fact is to be found in the section on this drug. We fear that the convenience of the work will be lessened to English readers by the maintenance of the decimal measures for the statement of most doses. This is done advisedly, and justified by convenience. It will, however, be long enough before the metric system is used for pharmaceutical purposes in this country. It is certainly not desirable that its introduction should be attempted until it is in use for every other purpose and there is universal familiarity with its details. Otherwise, the dangers of error will be great, and errors in pharmacy have more practical results than errors in science. The work is interesting in an adventitious manner, as being the first foreign work on therapeutics, for a long time, which has been translated into English.

Dr. Ott's treatise on the Action of Medicines is of a different design and character. It is, in effect, a manual for the therapeutical laboratory, and a summary of those results regarding the action of drugs on animals and man with which Dr. Ott's original work and careful reading have made him familiar. The book is very much for the therapeutical experimenter what Dr. Sanderson's handbook is for the physiologist. It does, indeed, cover very much the same ground. The apparatus and methods employed in the experimental study of the action of medicines are the same as those which are used in physiological investigation. The treatise is justified in the preface, not only on account of the immediate and practical importance of the subject, but also because the author believes that "the study of the action of a drug on the lower animals is the best practical training in science that a medical man can have. It gives him a logical precision which will be most beneficial in his whole therapeutical life."

The first chapter is on the method of studying the physiological action of medicines, a general description of the methods of experimenting on animals, and of apparatus of general application. This is followed by a description of the method of observing various facts regarding the action of the nervous system, and the apparatus used. The experimental study of the action of atropia is employed as an illustration of the methods, and a number of experiments demonstrating its action are detailed. The third chapter details the study of the circulation, and the influences which affect it, and here also atropia is used as an illustration. The chapter includes a sketch of the physiology of the circulation, the methods of measuring velocity and tension, and then a detailed description of experiments, and of the apparatus employed. The last chapter, which occupies nearly half the book, contains an account of the chief facts regarding a series of the more important remedial agents, the action of each on the lower animals, its action on man, and its action on disease. The latter notes are too brief to be of much value; the two former are brief, but comprehensive and carefully stated. The frequent contradictions between different experimenters suggest how careful we must be in assuming that all that is stated as ascertained is beyond the reach of doubt. We note the same endeavour to explain the action of drugs in disease by the result of experiment to which we have adverted as the prevailing feature of the special workers in this field. In indicating the danger which attends too exclusive attention to this method of

study we do not for a moment disparage its real value and high importance as one aid to attain a sound foundation for practical therapeutics, an end to which Dr. Ott's treatise is likely to conduce.

Physiography: An Introduction to the Study of Nature. By T. H. HUXLEY, F.R.S. London: Macmillan & Co.

THIS work is a course of twenty-one lectures, delivered some years ago by Professor Huxley at the London Institution, in which opportunity is taken to indicate what, in his opinion, is the proper mode of commencing the study of natural phenomena. The base of operations, or theme of description, is the Thames, though, of course, any other river might have been taken. He commences by telling his readers the volume of its current, its tributaries, and the extent of its basin, in the course of which he digresses into methods of depicting the characters of the country in maps, plans, and sections. From this he proceeds to the source of its waters, which leads him to discuss the rainfall, and the mode of origin of springs, evaporation, the composition of the atmosphere, the composition of pure water and the causes of its contamination. From these considerations the passage is easy to the work done by rivers and by ice, by the sea, and by earthquakes and volcanoes. Then the changes wrought by slow movements of the land, and the evidence of the occurrence of such changes, are considered. Chapters 14, 15, and 16 deal with living matter and the effects of its acting on the distribution of terrestrial solids, fluids, and gases, leading to an account of coral islands and foraminiferal land, and so on, to the geology of the Thames basin. The last chapters deal with the general distribution of the land and water, the movements of the earth, and the physical constitution of the sun. It will thus be seen that the principal natural phenomena are touched upon always in a clear and interesting manner.

It is impossible to help contrasting this mode of instruction with the dull primers of geography that are even now in use in most of our schools, when such a subject is taught at all, and without feeling how a similar work might be written by a competent man that should instruct the student not only in the names and positions of the various countries, rivers, mountains, and headlands of the world, but in the modes in which these have severally been formed, the causes of their peculiarities and their products, the situation of the cities and the reasons that have led to the selection of their site or have secured their greatness.

OUR LIBRARY TABLE.

The Royal London Ophthalmic Hospital Reports. Vol. IX., Part II. December, 1877. Edited by J. HUTCHINSON. London: J. & A. Churchill.—This part opens with a communication from the editor on clinical groups of cases of Amaurosis. These he divides into (1) those proceeding from optic neuritis consequent on tumour in the brain; (2) those from tertiary syphilis; (3) those from meningitis in children. He points out the advantage that would be gained if short *resumés* were given in important cases. Mr. J. E. Adams reports two cases, one of ophthalmia in a gouty patient, the other of paralysis of the third nerve. Dr. S. Mackenzie records a case of glycosuric retinitis, followed by some well-considered and valuable comments. Mr. Nettleship describes the communications that exist between the retinal and ciliary vascular systems, and thus explains arrangements and course of vessels that were formerly thought to be anomalous; he also furnishes some notes and cases chiefly on retinitis pigmentosa. The most important paper is one by Dr. W. A. Brailey, dealing with the very difficult and complicated subject of the pathology of increased intraocular tension. He shows how constantly it is associated with antecedent iritis or choroiditis, with or without concomitant or consecutive atrophy of the ciliary muscle; that it may long exist without the occurrence of any change in the optic disc; and draws an important conclusion that when there is an anterior synechia at the periphery of the iris—a condition extremely likely to set up serious inflammatory changes,—the operation of iridectomy should not be performed at the seat of the synechia, since the adhesion cannot thus be freed, but at some remote part, so that the iris may fall back towards the synechia, and all traction may be removed. Dr. Brailey also gives an account of two cases of rare tumour of the eye, one of epithelioma of the conjunctiva, the other of fibrous tumour of the optic nerve. Lastly, Mr. Gunn gives some short notices of hospital in-patients. The number, it will be seen, contains papers of considerable interest, and credit is due to Mr. Hutchinson for his continued exertions in promoting ophthalmic work in this country.

The Monthly Microscopical Journal. Nos. CVII. and CVIII. London: Hardwicke and Bogue.—These numbers contain the following articles: 1. A New Arrangement for Distinguishing the Axes of Doubly Refracting Substances, by H. C. Sorby. 2. On the Measurement of the Angle of Aperture of Microscopic Object-glasses, by F. H. Wenham. 3. The Building Apparatus of Melicerta rnigus, by Alfred Bedwell. 4. An Introduction towards the application of the Microspectroscope to the Study of Evergreens, by Thomas Palmer. 5. On the Microscopical Examination of Water, by W. L. Scott. 6. On the Lachrymal Gland of the common Turtle, by C. Stewart. With the December part closes both the eighteenth volume of the *Monthly Microscopical Journal* and its existence. It has done good work in its day; and though some of the later numbers have been deficient in medical professional interest, and too exclusively devoted to subjects of technical detail to bear abstraction in our columns, it has yet been the medium through which many important researches have been communicated to the world. It has been published with remarkable regularity.

Gazeta Medica da Bahia. No. 9, 1877. Edited by Dr. A. PACIFICO PEREIRA and others.—The number opens with a short editorial notice in respect to the diploma of the American University of Philadelphia. The second article, by Dr. Silva Lima, gives an account of the Bilharzia hæmatobia and its connexion with Chyluria, referring to the observations of Wucherer, Lewis, Cobbold, Aranjo, Neill, and others. Dr. Agnello Leite gives a case of Extra-uterine Pregnancy, in which ulceration of the abdominal wall took place, gastrotomy was performed, a dead fœtus extracted, and a cure effected of the mother. An epitome follows of Dr. Balmanno Squire's paper on Araroba, Goa Powder, or Powder of Bahia, which lately appeared in the columns of a contemporary. Lastly, a short paper is devoted to the nutritive properties of the root of a leguminous plant named Mucuman, growing in Bahia.

Archives de Physiologie. No. 6, Nov. and Dec., 1877. Publiées par Brown-Séquard, Charcot, et Vulpian.—This part contains the following papers:—1. Physiological Antagonism, M. J. L. Prévost, read before the International Medical Congress at Geneva. 2. Sclerosis of the Optic Nerves, and of the second, third, and fourth pairs in General Paralysis, by M. V. Magnan. 3. Researches on Tuberculosis of Larynx, by M. J. Amédée Doleris (an important memoir). 4. On Vision with different parts of the Retina, by M. A. Charpentier. 5. On the means of estimating Hæmoglobin by the method of Colour Tests.

The Local Government Directory (thirty-seventh year). London: Knight and Co.—This indispensable volume, conveniently arranged and admirably printed, should be on the table of every practitioner having official relations with the Local Government Board.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 2, 1878.

THE administration of the London hospitals is, it must be admitted, very far from perfect, and it is no matter for surprise that at frequent intervals the daily press becomes the arena for the discussion of the shortcomings of the financial and other arrangements of our leading charities.

The great question to be decided, and the one to which all others are subsidiary, seems to be this: "Has a hospital any right to run into debt?" We know very well that in the opinion of many hospital secretaries a debt is considered rather a good thing than otherwise. It affords a legitimate excuse for making a strong appeal to the public—an appeal which, if properly conducted, is sure to be responded to, and possibly in such a manner as not only to enable the institution to satisfy its creditors, but to enlarge its area of work and run into debt again on a larger scale than before at a not very distant date. This is no doubt the line of conduct which is very generally pursued, and which is readily sanctioned by the various divines, peers, and notabilities who constitute the governing body. We very much doubt, and have often expressed our doubt, whether such a method of management is just, prudent, or honest. The considerations which ought to determine the line of conduct to be pursued by a hospital board should be the same as those which determine the actions of men in business; for a hospital is a purely business concern, the function of which should be to distribute just so much relief as is paid for by the public, and no more. A commercial company limits its undertakings in proportion to its capital, and puts by annually a certain amount of its income as a sinking fund to meet exceptional expenditure. A well-managed hospital should do the same thing. It should spend a certain proportion of its income, and should put by the rest, so that, in years of scarcity, when the need of charity is great and contributions are scarce, it might be enabled to continue its much-needed work until the hard times are tided over. We are strongly of opinion that any hospital board which habitually runs into debt does not do its duty by the public, and the public would do well to withhold its subscriptions until some guarantee is obtained that the money subscribed will be used with due prudence and economy and with an eye towards the eventual independence of the institution. We can point to one well-known hospital which, since its establishment, has received in subscriptions, legacies, &c., considerably more than a million of money—a sum which, if invested, should be bringing in an annual income of £40,000; and yet this charity is still the chief among beggars, and scarcely manages, even by spasmodic efforts, to meet its annual expenditure of about half that sum.

The London Hospital, we learn from Mr. CROWDER'S letter in *The Times* of the 22nd ult., has just been "compelled to sell out £21,770 stock, besides borrowing £5000, in order to meet the current expenses." In other words, the governors of this hospital consider themselves justified in diminishing their certain income by something like £700 a year, rather than close any of their wards. When misfortunes like this overtake a great charity, we feel sure that there is only one course which can be rightfully pursued, and that is to diminish the amount of work. The public should be duly informed that the small amount of its contributions compels the governors to close wards and limit the number of out-patients. The fact that the public subscriptions are inadequate to meet the demands made by the poor should serve as a good excuse for inquiring somewhat closely into the social position of those who seek relief, and for excluding all those whom one may reasonably expect to be provided for elsewhere. Mr. CROWDER is quite right when he says that the chronic invalid pauper is not a proper object for the charity of persons who also pay poor rates, and has no right to occupy a bed in a general hospital which is intended mainly for those who are rendered temporarily necessitous by sickness or mishap. It has been contended that a very large proportion of hospital patients might be made to contribute something towards their own maintenance. Sir FOWELL BUXTON points out that there are certain difficulties in the way of levying such a tax; it is, however, doubtful whether on trial those difficulties would prove so great as he supposes. This plan has been adopted by the governors of the Royal Infirmary for Children and Women in the Waterloo-road. For two years it has been the custom there to ask all out-patients for one penny at each attendance, and all in-patients for sixpence a week during their residence in hospital. These sums have been collected without difficulty, and have been paid with the utmost cheerfulness; only in very few instances has the plea of inability to pay been urged—a plea which has always been admitted at once and without question. The number of out-patients and in-patients has steadily increased, and the sum contributed from this source amounted in 1877 to £150. At the London Hospital in 1877 there was a daily average of 650 in-patients and 120 new out-patients, so that the attendances of out-patients cannot well be less than 160,000 annually. If these patients had paid the same sums as the patients of the Royal Infirmary, the aggregate would have amounted to £1471. We make the reflection without expressing any opinion on the broad question of expediency.

There is a class of hospital patients for the care of whom the governors might reasonably expect to be adequately paid: we mean the servants of wealthy employers who are accidentally injured in the service of such employers. We may take as an illustration the instance of railway *employés*, who form no inconsiderable proportion of the patients in the surgical wards of the hospitals in London and other large towns. We hold that the railway companies are morally bound in such cases to pay for the support of their servants while in hospital; but, as a rule, it will be found that the contributions of railway companies to hospitals bear but a small proportion to the amount of relief received. This question has lately been raised in Liverpool, and has been discussed in the columns of the *Liverpool Daily Courier*. Mr. CHARLES INMAN, the treasurer of the Northern Hospital, states that the Lancashire and Yorkshire Railway Company have sent to that institution an average of twenty

in-patients and fifty-eight out-patients annually. The cost of the maintenance of the in-patients alone is reckoned at £150, and yet the directors of the railway company refuse to contribute more than £25 a year. The railway company is morally, if not legally, bound to maintain its own servants when they are disabled, and we fully agree with Mr. INMAN that the public have no right to be called upon to contribute to their support. Many wealthy employers of labour and private individuals make a practice of subscribing to hospitals, in order that they may have a convenient and cheap asylum for servants who may be sick or injured, and it is the duty of the governors to see that such persons pay something approaching an adequate sum for the charity which is meted to their dependants. It would be interesting to enumerate in parallel columns the sums contributed to our hospitals by railway, dock, and other companies, and the amount of relief afforded to their *employés* by the great hospitals of London, and other centres of mercantile activity.

THE determination of the functions of the retina, in regard to the perception of magnitude and of colours, has been of late exercising some excellent experimenters and ophthalmologists, and the results at which they have arrived may here be shortly given; and it is not uninteresting to follow the various methods that have been adopted with the same object in view.

The sharpness or acuteness of vision in different parts of the retina—that is to say, its power of distinguishing minute objects — has been investigated by various observers. LUNDBERG'S researches were undertaken with a view of determining the degree of acuteness in the immediate vicinity of the blind spot or point of entrance of the optic nerve. This was first roughly determined, and then squares of white paper of one-fiftieth, one-twenty-fifth, one-twelfth, and finally one-half of an inch in the side, were placed in a position nearly corresponding to the centre of the blind spot, and, with the aid of a FÖRSTER'S perimeter, provided with a millimetre scale, slowly moved in all directions outwards. The first appearance of the angle of the square was noted, and a figure was thus constructed from which the diameter of the blind spot could be estimated. It was found that there was a difference in the figures obtained with the large and the small squares, the size of the blind spot appearing to be greater with those of one-fiftieth of an inch, and smaller with those of one-half inch on the side. Thus, with the former the vertical diameter of the blind spot of the right eye was estimated at 2·064 mm., and its horizontal diameter at 1·425 mm., whilst with the half-inch squares the horizontal diameter was 1·277 mm. and the vertical 1·298 mm. The difference between the two horizontal diameters was thus 0·148 mm., and of the two vertical diameters 0·766 mm. The sensitiveness of the retina near the blind spot is evidently, therefore, less above and below the entrance of the optic nerve than on either side. The figures obtained presented some irregularities and projections which were found to correspond to the position of the retinal blood-vessels.

Observations of a somewhat similar character were undertaken by ILEN, who used letters of various size instead of squares, and found that the acuteness of vision at the margin of the yellow spot diminishes to one-half or even to one-third of that possessed by the fovea centralis, though on passing beyond the limits of the macula lutea the diminution takes place much more slowly. The breadth of the zone in which, by unpractised eyes, letters can be distinguished, differs in the different meridians, and naturally to some extent in different persons. It is greatest in the outer parts of the field of vision, which corresponds of course to the inner part of the retina; next in the inner part of the field, then in the lower, and least of all in the upper part. Small letters near the eye are read at a greater distance from the fovea centralis than large, but more distant letters under the same visual angle. Practice, it is interesting to observe, made a great difference, though not equally in all directions. Thus, in the horizontal meridian, and externally, the breadth of the zone in which large letters could be read improved by practice from 45° to 80°, no less than 35°, in the inner part of the field from 38° to 55°, in the upper part of the field from 30° to 45°, and in the lower from 32° to 50°. This improvement, it is to be observed, simply affected the recognition of letters, and bore no reference to the perception of light, which remained unaltered by any amount of practice.

The latest observations that have been published on this subject are by AUGUSTIN CHARPENTIER, in BROWN-SÉQUARD'S *Archives de Physiologie*. This observer used a square composed of nine black dots, each having a diameter of 1·6 millimetres; and, having seated himself before a FÖRSTER'S perimeter, and fixed the central spot of the instrument, he caused the square to be slowly moved outwards along different meridians till the dots could no longer be separately distinguished. The direction of the movement of the square was then changed, and it was brought up towards the eye, but at the same angle, till the dots could again be distinguished. It was found that, whilst, when the square was directly looked at, the dots could be distinguished as separate at a distance of 3·50 metres, or nearly 11½ feet, at an angle of indirect vision so small as 5°, they could only be recognised as separate at about 1·30 metre, or 5 feet; at an angle of 10° at 3 feet; whilst at an angle of 30° the square had to be approximated to a distance of less than 10 inches in order that the several dots might be distinguished. From all these experiments, therefore, the same conclusion may be drawn that the sharpness of vision is very great at the yellow spot, but falls with great rapidity immediately beyond it.

Another point of interest that has lately been investigated, though there is some discrepancy in the statements, is the sensitiveness of different parts of the retina for different colours. DOBROWOTSKY, a Russian observer, finds that if the same illumination be given to discs of different colours, which is difficult to manage in practice, and these are gradually moved towards the point of fixation of the eye along different meridians, white, and, coincidently, blue, are first perceived in all parts of the retina, then green, and finally red. CHODIN, on the other hand, though admitting that the various colours undergo some change of tint when seen by indirect vision, yet thinks that all colours can be recognised up to the most extreme limits of the retinal field. WOINOW, again, speaks very definitely of the existence of three zones of perceptivity in regard to colours around the macula lutea. In the first, immediately surrounding this spot, all colours appear less saturated than in the centre, some of them being

apparently "bluish" or "yellowish," constituting what he terms relative red and green cecity. In the second zone only yellow and blue are distinguished—his zone of absolute red and green cecity; mixed colours seen with this zone appear pure yellow if, when seen with the fovea centralis, they seem to contain much yellow or pure blue; if with central vision, they seem to have much blue in their composition. In the third, or outermost zone, perception of light remains, but no colour can be recognised. This zone, therefore, represents that defect of vision which sometimes affects the whole retina, and is termed achromatopsia, the play of colour being unperceived. From these observations WOINOW is led to admit the existence of five different elements in the human retina—one, the rods, having for their function the perception of light alone; and four kinds of cones, each adapted to perceive a fundamental tint—red, yellow, green, or blue,—but having a very different distribution. In and near the centre all are present, though even in this zone the red are less numerous peripherically than centrally. In the second zone, in addition to the rods, only yellow and blue percipient cones are present, whilst in the third zone the rods, or light-perceiving elements, alone remain. WOINOW remarks that the red and green perceiving elements are very tender and delicate, and are the first to fail in function when the eye is injured, as in cases of contusion, whilst the yellow and blue perceiving elements are more resistant, and no case of their absence has hitherto been recorded. KLUG'S observations, which have been published in GRAEFE'S *Archiv*, agree with those of WOINOW, except that he makes a fourth zone within WOINOW'S red zone, in which only orange and violet are clearly perceptible.

AMONG the communications appearing in our columns this week is one from Dr. WILSON FOX, which propounds a question of considerable gravity. The issue raised is not of a nature to be discussed without some sacrifice of feeling. It is unpleasant in itself, and the treatment it receives at the hands of men who cherish a lingering regard for the decencies of life will doubtless seem ungracious to those who have uprooted and cast to the winds "Old World prejudices." The question, which Dr. WILSON FOX treats with characteristic delicacy, is—How are we to meet the encroachments of those unwomanly women who, having forced their way into the ranks of the medical profession, claim the right of participating in the proceedings of societies formed for mutual intercourse and scientific discussion amongst its legitimate members?

We are not surprised that this firstfruit of the mistake made in permitting women to step over the line of prudence and decorum should be almost prematurely developed. The development has been abnormal throughout; and, having overcome the natural instincts of modesty, it was scarcely to be expected that the persons engaged in this unseemly struggle would be deterred by considerations of self-respect from pushing their way into the very centre of the province they have invaded. Once "in the profession," they would of course insist on sharing its "privileges." Having brought themselves to grapple with the unsavoury topics of interest which medical *men* are compelled to investigate and discuss, it would follow that these bold women should show themselves undaunted in the pursuit of "knowledge," and exhibit anxiety, in place of unwillingness, to pursue their investigations and carry on their discussions in the society of men. Looking to the present tone of feeling in certain circles—for example, the University of London,—it appears that little difficulty is likely to be encountered by the pioneers of this strange movement. In a brief space of time it will probably be counted no breach of propriety to utterly disregard all considerations of reserve, and recognise a perfect freedom of intercourse on professional topics between the two sexes. In our last issue Dr. TILBURY FOX, who has consistently opposed the raid of unwomanly women upon the University of London, directed attention to a class of questions which it would probably be considered expedient to exclude from examination-papers now that "young lady" pupils are to be found among the candidates. We doubt whether the necessity of any such change will be apparent to the persons immediately interested. It is difficult to see how the science of medicine can be expurgated for the convenience of female students; nor are we convinced that any pains which lecturers and examiners might feel disposed to expend on the selection of their subjects, with a view to make them palatable to refined tastes, would be appreciated. These adventurous strangers have not sat down at the board without ascertaining the fare, and it can scarcely be requisite to modify the existing arrangements.

Dr. WILSON FOX has struck the key-note of the practical question by the interrogatory he addressed to the secretary of the British Medical Association, and the resolve based on the reply received. Is the presence and co-operation of women to be permitted in the proceedings of the Association and its sections? Being members, they cannot be excluded. "Then," says Dr. WILSON FOX—and we shall be astonished if the majority of sensible and self-respecting men do not share the feeling,—"I do not intend to be a member of any society where medical topics are debated in public between men and women." This is the position which remains to those members of the profession who are not prepared to violate what they conceive to be the laws of social decency. If women, admitted to the profession by the connivance of wondrously-constituted men, insist on mingling in the crowd of practitioners associated for mutual help and intercourse in matters of business, those who do not welcome the intrusion must needs retire into greater privacy, and associate on bases which will not hereafter be found so lax as to leave a Council powerless to exclude women. Happily it is still *possible* to erect and defend barriers against this indecorous and revolutionary movement, and some among us will probably determine to maintain the reserve which has hitherto existed on subjects of anatomy, physiology, and pathology, in the intellectual relations of the sexes. If the craze of the day for female doctors must needs be gratified, it is permissible for men who honestly hold this fashion of the time to be unseemly and, in its fruition, likely to prove disappointing and demoralising, to stand aloof. If it be impracticable to do this without sacrificing the advantages of professional connexion with an Association which has done good service to the cause, and advanced the progress of medical science, it must not be forgotten that the disturbance of existing relations has been occasioned by an aggression which the organisation finds itself powerless to

repel. It will in fairness be understood and remembered that it is not Dr. WILSON FOX and those acting with him who assail the *status quo*. The element which destroys cohesion is introduced from without. We have no wish to express a strong opinion with needless discourtesy, but the time has come to speak plainly on this subject. If women who have stifled the feelings and destroyed the instincts of their womanly nature are not content with an ungainly success in forcing their way into a profession for which they are constitutionally unfit, they must not expect to find men equally insensible to the obligations of propriety. However demoralising the commingling of the sexes in this matter may prove, we trust it will always be found that some of our class retain the self-respect exhibited by Dr. WILSON FOX, and are not less courageous in its practical expression.

Annotations.

"Ne quid nimis."

"MARCH OF AN ENGLISH GENERATION THROUGH LIFE."

THE last number of the *Quarterly Review* contains an entertaining and instructive article based chiefly upon the Supplement of the Thirty-fifth Annual Report of the Registrar-General, entitled "March of an English Generation through Life." The Report singles out, in imagination, a generation of one million persons, and traces its eventful journey from the moment of birth to the end of life. Of these, taking the whole of England, more than one-fourth die before they reach five years of age, and most of the survivors have been attacked once or oftener by disease. During the next five years the tenure of life becomes more sure, and between five and ten years of age the number of deaths is less than a seventh part of that of the first quinquenniad. Between ten and fifteen the average mortality is lower than at any other period. From fifteen to twenty the number of deaths increases again, especially among women, many of whom fall a prey to consumption and to the perils of childbirth. At this period the influence of dangerous occupations begins to affect the death-rate. Fully eight times as many men as women die violent deaths. The number of violent deaths continues to rise from twenty to twenty-five, and keeps high for at least twenty years—that is, until the age of forty-five is reached. Consumption is prevalent and fatal from twenty to forty-five, and is responsible for nearly half the deaths. At from thirty-five to forty-five the effects of wear and tear begin to reveal themselves, and many persons succumb to diseases of the important viscera. By fifty-five the imagined million has dwindled down to less than one-half, or 421,115. After this the death-rate increases more rapidly, and although the number of lives grows less, the number of deaths in each of the twenty years after fifty-five increases; the higher rate is sustained for ten years longer, until, at last, by degrees all disappear. It is somewhat surprising to find that at seventy-five 161,124, on an average, remain; at eighty-five 38,565, of whom Dr. Farr calculates that only 202 reach the age of one hundred years. At fifty-three the number of men and women surviving is about equal, but from fifty-five and onwards the women exceed the men. Of 100 women living at the age of fifty-five and upwards, 11 are spinsters, 43 widows, and 46 wives; of 100 men, 9 are bachelors, 24 widowers, and 67 husbands.

As regards occupations, it is interesting to note that while the clergy generally, whether of the Established Church or Dissenting ministers, or Roman Catholic priests, have, on an average, good health, members of the medical profession are subject to a high rate of mortality, which up to the age of forty-five is, we are told, much above the average. Chemists and druggists, commercial clerks, mercers, and drapers also seem to be less healthy than the average. Publicans, butchers, and fishmongers have not, as a rule good lives; but the baker, curiously enough, does not appear to be more unhealthy than the average of his fellow-citizens. Persons who work in wood, as coachmakers, wheelwrights, carpenters, joiners, and sawyers, have healthier lives than the average of men. The blacksmith, for instance, is not on the average so healthy a man as the wheelwright. Carvers and gilders, plumbers and glaziers, suffer much from the metallic poisons to which they are exposed; while the mortality of those engaged in earthenware manufacture approaches, after the age of thirty-five, double the average. Tailors and shoemakers are also unhealthy as a class. As might be expected, farmers and agricultural labourers are at the present time among the healthiest classes, but the young farmer, for some undiscovered reason, appears to have a less healthy life than the labourer of the same age; from the age of thirty-five and upwards, however, the farmer is the healthier of the two.

As to the social condition of the people of England, it may be noted that at the present day, and for the last thirty years, women marry at an earlier age than formerly, one-fourth marrying under the age of twenty-one. Among unmarried men the mortality is above the average, but it does not appear whether this arises from the want of domestic comforts or is due to the fact that the weakly men do not marry. It is also satisfactory to learn that, while the birth-rate has continued at much the same average, the number of children born in wedlock has progressively increased. The mortality from preventable causes is still much too high. Notwithstanding all that has already been accomplished, much remains to be done to secure a removal of dangerous substances in the air of factories, mills, and shops, such as flour, cotton, vegetable and mineral dusts. A larger and continuous supply of purer water, better and less crowded dwellings, are urgently needed, especially for the labouring classes. Intemperance and excesses of all kinds are known to have a very marked influence in raising the death-rate. Speaking of the high mortality among publicans, Dr. Farr says: "There can be little doubt that the deaths will be found due to delirium tremens, and the many diseases noticed are aggravated by excessive drinking. ..... The habit of indulgence is slow suicide. ..... The dangerous trades are made doubly dangerous by excesses." Those who wish to examine the evidence on which these statements are based will be amply repaid by the closer perusal of the article to which we have referred and of the Registrar-General's valuable Report.

THE HOSPITAL SUNDAY FUND AND SURGICAL APPLIANCE SOCIETIES.

A LONG discussion took place on Monday at the Mansion House on the propriety of bringing within the benefits of the fund those institutions which, on either provident or purely charitable principles, supply surgical and mechanical appliances, such as elastic stockings, trusses, artificial legs and arms, artificial eyes, together with surgical advice. Dr. Glover, in the absence of Sir Rutherford Alcock, strongly urged that these institutions were doing a work which was entirely kindred to that done by hospitals and dispensaries, and which was not done by either hospitals or dispensaries. Both he and Dr. A. P. Stewart said that they frequently met with cases in dispensary practice painfully in need of mechanical and surgical supports, which were met by such institutions. The provident element in some of these institutions was a virtue, not an evil. On the other hand, Sir Sydney Waterlow objected to the multiplication of special

institutions, and argued that the work would be better done by the great hospitals. He alleged, too, that the working expenses of these institutions were excessive. Sir Sydney said that in some these amounted to 75 per cent. of the expenditure. Such statements should only be made in definite connexion with the particular institution alluded to. Much just dissatisfaction was expressed at the rule of such societies which requires a patient needing a costly apparatus to get a number of letters representing subscriptions equal to the value of the apparatus required. The question is not free from difficulty. It cannot be doubted that the work done by these societies is real, and has never been done by the hospitals, or by the Samaritan funds of the hospitals. And it is doubtful whether it ever will be done by them. Meantime, it is not easy to see why the Hospital Fund should withhold grants from institutions which do a very serious and curative work not done by hospitals or dispensaries. The objectionable rule is to be objected to, but it is not a reason for refusing some help, and it is not desirable, in the interest of the Hospital Sunday Fund, to draw invidious comparisons between the great hospitals and other institutions with similar objects, but without the advantage of their wealth and history.

INQUEST OR NO INQUEST.

WHILE it would be in the highest degree undesirable to limit the power of coroners to hold inquests whenever it may appear to them expedient that such an inquiry should take place, it is by no means so clear that the present comparatively irresponsible discretion of coroners as to the necessity for holding inquests is at all times satisfactory in practice. It would be next to impossible to frame any regulations with a view to prevent the holding of unnecessary inquests, which would not hamper the discretion of coroners to a dangerous extent; unless a well-considered system of preliminary investigation were instituted. On the other hand, however, there would be no practical difficulty in enumerating certain classes of cases in which almost all would agree that a coroner's inquest should be held, without option of refusal on the part of the coroner. The present entire want of uniformity in the exercise of the discretion of coroners as to the necessity for holding inquests is one of the main defects in the administration of the present system of coroner's law. It is only requisite to point to the fact that even in the twenty largest English towns the proportion of inquests held varies from little more than 2 per cent. of the deaths to more than 8 per cent., to prove the wide variations in the exercise of this discretion. It is only necessary to know that in some parts of the country bodies of children or adults may be found dead in a pond or in a ditch, and yet the local coroners in the exercise of their discretion may decide that inquests are unnecessary, and the deaths have to be registered without any scientific evidence of the cause of death, merely on the information of a relative of the deceased, who by negligence or worse may have contributed to the death, and who frequently signs the death-register with a mark. Instances might be quoted in which deaths resulting from suicide in a workhouse have been registered upon the certificate of the medical officer, without any inquest being held. It is needless to multiply examples of the present system, which can from no point of view be considered satisfactory. The Registrar-General, in his last Weekly Return, reports, however, a case which bears very pertinently upon this defect in the present inquest system. On January 23rd the wife of a mariner, aged thirty years, died suddenly in a waiting-room at the Charing-cross Railway station; the body was taken to Charing-cross Hospital, and for the purpose of registration, if for no more important object, it became desirable to know what was the cause of the death. The hospital authorities naturally objected to give a medical certificate of the cause of death, based upon a mere inspection of the dead body. The coroner having local jurisdiction having been informed of the circumstances of the case, in the exercise of his discretion, declared an inquest to be unnecessary. The result was that the death was of necessity registered without the production of scientific evidence of the cause of death, which was entered in the register as "phthisis," on the information of the ordinary informant. It is difficult from the circumstances of the case, as described by the Registrar-General, to doubt that the case was one in which it would have been desirable to hold an inquest, more especially as no certificate could be produced from a registered medical practitioner who had been in attendance upon the deceased during her last illness. There may have been no moral doubt about the deceased having died from "natural causes," but this could only be satisfactorily established by an inquest and post-mortem examination; while of the registered statement that the deceased died from phthisis there appears to have been absolutely no satisfactory evidence.

PUBLIC SUPERVISION OF THE MILK-SUPPLY.

IT is impossible to disregard the multiplicity of proofs that some effectual method of securing the supply of pure milk needs to be devised; the spread of disease by this necessity being an incontestable fact which must now be assumed as a postulate in the argument. We are strongly of opinion that no sufficient guarantee can be obtained without public supervision by official agency. Milk inspectors should be appointed to test the article sold to consumers and to trace it to the source of supply, thus bringing each farm, the stock and arrangements, under close scrutiny. It is not, we think, desirable that the inspectors appointed should be local officials. An arrangement by which this important duty could be discharged by officers acting under the authority of a central department, such, for example, as the Board of Trade or the Privy Council, would be preferable. This matter is of no less moment to public health than that of contagious diseases among cattle. There would be many obvious advantages in the method of visitation by travelling inspectors, wholly independent of local influences, and making their appearance at a dairy farm unexpectedly. It is scarcely conceivable that any intelligent observer can suppose the evil of blood-poisoning by contaminated milk too trivial to justify this demand; but if such an impression prevails in any quarter it may be instantly corrected by a careful survey of the condition of matters throughout the country. News reaches us from many localities of typhoid fever, and other grave maladies, propagated by the milk-supply. The subject is one which might well engage the attention of Parliament, even at a time when questions of social interest, seemingly more momentous, but not less vital and urgent, clamour for attention.

PHOSPHORUS POISONING.

A CASE of no small interest from many points of view has recently occurred at Netley. The following are the particulars:—A man named Ball, aged thirty-one, employed as a billiard marker in the officer's mess of the Victoria Hospital, was taken ill on Dec. 11th with pain in the abdomen and retching. He had been drinking hard on the previous night, and his symptoms were attributed to this cause. He recovered to a certain degree, but became jaundiced, and on the 18th, being very weak, he was admitted to the hospital, where he died the next day. His jaundice, together with symptoms referable to his liver, and a history of previous liver disease while sojourning in India, led to a diagnosis of acute yellow atrophy of the liver—a diagnosis which was confirmed by the post-mortem examination, for the liver was

found small, soft, flexible, of an intensely yellow colour, and with the liver substance almost entirely replaced by fat-globules. The kidneys were also swollen and soft, and petechial extravasations were seen on the pulmonary and alimentary mucous membranes. The man was buried without a certificate in the military cemetery adjoining the hospital. It appears to be the custom for the registrar to visit the hospital once a week, to obtain the certificates of those who die and are buried in the military cemetery; and under these circumstances it is not always possible or advisable to leave the bodies unburied until the formalities are complied with. A rumour having arisen, however, that the deceased had taken rat poison, the stomach was submitted to a qualitative analysis by Dr. De Chaumont, and phosphorus having been detected, the coroner was at once informed; the recently interred body was exhumed, an inquiry was opened, and the stomach and portions of other viscera were forwarded to the county analyst, Mr. Angell, for examination. Phosphorus in considerable quantities was found in the stomach, and abundant evidence was forthcoming that the deceased had rat poison in his possession, and there were good grounds for believing that he had taken some in a fit of jealousy on the morning of Dec. 11th.

The confusion of phosphorus poisoning with acute yellow atrophy of the liver is of great interest, and it becomes of much importance to determine what are the points to be attended to in distinguishing the post-mortem appearances and symptoms of the one disease from the other. A reference to standard treatises will show that the symptoms, course, and duration of the two conditions are, or may be, almost identical. The fact that the patient was a man militated somewhat against the theory of yellow atrophy. As to the post-mortem appearances, the differences observable in the two conditions seem to be these:—In acute yellow atrophy the liver is very small, and this constitutes the most striking feature. The yellow colour appears to be due to bile-pigment; fat, if present, is not observed in any very great quantities; and crystals of leucin or tyrosin are found amongst the degenerated detritus of the liver-cells. In phosphorus poisoning the atrophy is not usually extreme; the colour seems entirely due to fatty change, and leucin and tyrosin are not observable. The question is one of unusual interest, and seems well worthy of a thorough investigation at the hands of pathologists.

MEDICAL REMUNERATION IN NORTH WILTS.

A CASE which has recently been decided in the Chippenham County Court gives us a painful insight into the discrepancy of opinion that exists between members of the profession in that district as to a proper scale of remuneration, and the lamentable want of *esprit de corps* which allows such differences to find vent in open court, and provoke the disparaging comments of the judge and attendant solicitors. The facts are briefly these:—Mr. Jay, a surgeon of Chippenham, brought an action against a farmer residing at Stanton, near Chippenham, to recover the sum of £5 5*s.* for attendance on defendant's wife—namely, £3 3*s.* for confinement, and £2 2*s.*, at the rate of 8*s.* a visit, for subsequent attendance. As the defendant occupied a farm at a rental of nearly £400 a year, and the distance from Chippenham was some six miles, the charges seem to us very moderate, and this opinion was supported by the evidence of two medical men in the neighbourhood. Unfortunately, however, three other medical men were brought forward to show that the charges were excessive, and beyond what were customary in that district. One of the witnesses, a Fellow of the Royal College of Surgeons, stated that for "five separate attendances at Stanton, a distance of five miles, a proper charge would be 25*s.*" This evidence was corroborated by another witness, who stated that "the mileage charge from Chippenham to Stanton would be 5*s.*, not 8*s.*, as charged by Mr. Jay." This makes the professional remuneration on a par with that of the post-master of the town; indeed, the latter is in better case, for the services of the coachman are paid for extra. We wonder what the solicitors of Chippenham would charge for a drive of over five miles and professional advice. The judge, commenting on the case, remarked that the evidence went to show that, according to the custom of the medical men at Chippenham, the fee of three guineas covered all attendances during the subsequent week. As, however, there was one attendance subsequent to the week, he would allow for it at the rate indicated by the evidence of the medical profession—viz., 1*s.* per mile. Personally, he should have been glad to have arrived at a broader conclusion. As "he had often said, medical men were frequently underpaid for the serious trouble and responsibility they incurred." He thought these disputes might be avoided if a more definite agreement as to charges were made in these cases. From these remarks it will be seen that the medical men of Chippenham have only themselves to thank for the low scale at which their services will be in future estimated by their patients. We would, however, remind the good people of Chippenham of the old saw, which says "the choice between a good doctor and a bad doctor is the choice between a pound and a shilling."

BLIND AND DEAF-MUTE CHILDREN.

A BILL will be brought before the House of Commons this session by Mr. Wheelhouse and Sir Andrew Lusk, which will enable boards of guardians and school boards to send any deaf-mute or blind child, under the age of fourteen years, to any school fitted for the reception of such child, and to pay from funds in their possession the expense incurred for its maintenance, clothing, and education during the time it shall remain at school. The success which has attended the voluntary efforts of charity to ameliorate the pitiable condition of those afflicted with blindness or deaf-mutism has been very great; not only have many whose lives would have been a living death been educated, so that they are now capable of taking a share in matters of general social interest, but many who would otherwise have sunk into a condition of hopeless pauperism have been taught some useful occupation, and thus found means of self-support. But the efforts of charity, however great, are limited, and a considerable number of children afflicted with either blindness or deaf-mutism are to be found in our towns and villages, either in the workhouse or grudgingly maintained by relatives, utterly neglected so far as special training goes, and who, if not already paupers, will speedily fall into that condition. The present Bill will afford adequate provision for these children, and it is only just that while the State enforces education on strong and healthy children, it should not neglect those whom fate has so cruelly isolated, and who, if unable to obtain the advantages of a special education, sink into a condition of abject wretchedness, and a burden for many years on ratepayers.

DEATH CERTIFICATES AND UNQUALIFIED ASSISTANTS.

THINGS do not seem to go very smoothly with the Attercliffe Dispensary, especially in cases where "the tendency to death is not obviated." The *Sheffield and Rotherham Independent* gives an account of two inquests on children attended by Mr. Turner, an unqualified assistant of Mr. O'Meara. In the first of these cases Mr. O'Meara gave a certificate of death, in which he stated that his assistant, having seen the child, was of opinion that it had died of bronchitis. The registrar refused to take this certificate, on the ground that Mr. O'Meara had not seen the child, and therefore was not in a position to state the cause of death.

The coroner approved the action of the registrar. So do we. But the coroner was not so sound in his judgment when he accused Mr. O'Meara of deception. There was perfect candour in Mr. O'Meara's statement, as far as we can see, and the coroner owes it to himself and to Mr. O'Meara to withdraw such an unfounded charge. But we strongly condemn the practice of allowing unqualified assistants to attend serious and fatal cases, and applaud the action of those registrars who refer such deaths to the investigation of a coroner.

TRAINING SHIPS AND SCHOOLS.

THE success which has attended the establishment of training ships, either as homes for destitute boys or as reformatories for juvenile offenders, makes us regard with interest a Bill that will be brought before Parliament during the present session to afford facilities for establishing training schools in each county, with training ships attached, provision for the support of which is to be made by the guardians for the relief of the poor out of the poor-rates. What to do with the workhouse boys has always been a problem, and we hope, if the above scheme is adopted, it will find a satisfactory solution in furnishing our navy and mercantile marine with a constant supply of well-trained recruits. Workhouse schools on shore have undoubtedly improved considerably of late years; but the monotony, which is inseparable from even the best managed, is very great, and exercises a most injurious influence on the minds of the boys; whilst the confinement within brick walls, often in the impure atmosphere of towns, and the inadequate provision for healthy and exciting exercise, check their development, and encourage outbreaks of disease which is so often latent in lads drawn from this class of the population. On board ship the monotony would be decidedly lessened, if it existed at all; for if the ship were moored in some busy river-reach or off some frequented port the incidents of the day would be full of interest, whilst the nature of the training itself would be more varied and exciting than constant application to the "three R's" in crowded class-rooms. The boys, too, would have something to look forward to in the probability of a life of adventure and honest endeavour, instead of passing from the thraldom of workhouse routine to the almost equal drudgery of apprenticeship to some petty tradesman. The splendid qualities shown on many occasions by lads trained on such ships, who before were mere city arabs, often young criminals, encourage us to be sanguine that our pauper children, under similar favourable conditions, may be elevated into manly and industrious Englishmen. It is by properly training the children of our lower classes, and providing them with suitable occupations, that we may hope to reduce the burden of pauperism bequeathed to us by the neglect and selfishness of the past.

SANITARY CO-OPERATION.

ATTEMPTS have been made to found a Co-operative Sanitary Association in Edinburgh. The idea is simple, and, if properly worked, might be effective. It is suggested that each member shall pay an annual subscription of one guinea. With the sum thus collected one or two able young engineers might be permanently employed by the society to visit and inspect the dwellings of the members. They might further give estimates of the cost of necessary improvements, and, in fact, render whatever service their technical knowledge might suggest. Their advice would, however, be controlled by a consulting engineer of high standing; and further, no officer belonging to the society would be allowed to hold any pecuniary interest in any patent manufactory. Such, in a few words, is the scheme now before the public of Scotland, and we understand that it so far met with approbation that the Professor of Engineering at the University of Edinburgh has promised to give his services gratuitously to the association during the first year of its existence. We fear, however, that the work of the society will not be so simple as it may seem at first sight. The services of medical men and of scientific chemists will be required, to supplement the work of the sanitary engineers. Nor is this all. Legal advice will be needed on many occasions, and all this will increase considerably the expenses of the association; but these considerations need not deter its members from the pursuit of their useful purpose. Apart from their own achievements, the action and example of the society will probably tend to increase the activity of the local sanitary authorities, whose *esprit de corps* should be strongly affected by a movement which indicates how defective is the condition of the district entrusted to their care. This sanitary society naturally reminds us of the Paris and Strasburg Tenants' Associations, to which we recently alluded in these columns; and we cannot help suggesting that if these various organisations were to borrow from each other points peculiar to their individual programmes, the power of each would be greatly increased, to the general advantage of the public.

HARVEY AND CESALPINO.

THE current number of the *Edinburgh Review* contains a clear and impartial statement of the share that Harvey and Cesalpino respectively took in the discovery of the circulation of the blood; but the lecture on Harvey, delivered at the Royal Institution on Friday, the 25th ult., by Professor Huxley, and reproduced in this month's *Fortnightly Review*, is, as Mr. Matthew Arnold would say, more to the tune of "Rule Britannia," and takes less heed of the claim that has been set up for Cesalpino. The dispute as to whom the credit of having discovered the complete circulation of the blood belongs, began when Harvey published his work "De Motu Cordis," in 1628. Some said that Harvey had stolen the idea from the writings of Plato, and others ascribed the knowledge of the circulation of the blood to King Solomon. The truth is that some notion of the circulation was entertained by most of the older anatomists. Hippocrates, Aristotle, Praxagoras, Erasistratus, and Galen, all speak in terms more or less explicit of the motion of the blood within the bloodvessels, but every one of these writers was led astray by the erroneous views of physiology which in their day prevailed. Servetus, who was burned as a heretic, at the instigation of Calvin, in 1553, discovered the pulmonary half of the circulation, and perhaps also the systemic half, although his phraseology is too ambiguous to bear a nice analysis.

The relative merits of Cesalpino and Harvey cannot, perhaps, be better summed up than in the words of the writer in the *Edinburgh Review*: "To Cesalpino the merit is due of having first stated an important truth, and even of having partially proved it; but Harvey took a view of that same truth which marks out a new era in scientific history. Each observed the same vital motion of the blood through the irrigating system of the body, but the causes assigned for it by each were entirely distinct. The contrast of Cesalpino's '*agente spiritu*' with Harvey's '*hæc omnia à motu et pulsu cordis dependere*,' exhibits the antithesis of mediæval and modern modes of looking at nature."

HOSPITAL SATURDAY FUND.

THIS fund will have a new chance of success under the presidency of Mr. S. Morley, who writes a letter to *The Times* bespeaking the favour of employers of labour and of others interested in the working classes. Mr. Morley says the great principle of the movement is that those who are the chief *beneficiaries* by the hospitals of London should contribute to their support. The principle is thoroughly sound.

The sooner the working classes of London realise that the Hospital Saturday Fund up to this time has been something very like a discreditable failure the better. A penny a week per head from them, a day's beer money, would do better than anything yet accomplished by them. But a week's beer-money—say 3*s.* 6*d.*—a very moderate computation, would make a splendid contribution to the struggling and impecunious hospitals of London. We are persuaded that the fault has been not only with the working classes, but lies also with those whose duty it is to lead them and organise a regular system of contributions.

PHYSICAL EDUCATION FOR GIRLS.

IN these days, when so many women are engaging in intellectual pursuits of a high character, and even are desirous of competing with men in the cares and anxieties of professional life, the question of their physical training ought to receive more attention than it has hitherto done. In this respect girls stand at a great disadvantage as compared with boys. Up to a certain age, say eight or nine, a girl mixes often on equal terms with her brother in his sports, indeed not infrequently excels him both in skill and spirit; but after that age healthy exercise is sacrificed to the bondage of genteel deportment. The growing child is confined with stays, and her feet crippled with tight boots. Anything like vigorous muscular movements are thus rendered impossible, and the sole exercise is the torpid regulation walk. Owing to this want of functional activity of the muscular system the muscles waste and dwindle, and the nutrition of the body becomes impaired. Many of the troubles women suffer from in later life are undoubtedly due to impaired muscular vigour, and much suffering would be spared if proper attention were paid in early life to their physical development by a course of systematic training. We do not mean that our daughters should emulate their brothers in the cricket field, or that female athleticism should become the vogue. But we would point out to parents and managers of schools the danger entailed by the present neglect of exercise, and indicate the games that could be most easily adopted. Thus, fives, rackets, and lawn tennis are games for which no great space is required; the latter game might be taught systematically, just as cricket is to boys at public schools. To play these games with safety, however, stays and tight boots must be altogether discarded. Swimming, too, ought to be taught at all girls' schools, not merely because of the protection it affords, but also from its being in itself an admirable exercise, bringing into play all the muscles of the body.

THE WAR.

A CORRESPONDENT of the Russian medical journal "Contemporary Medicine" (*Sovraymenaya Meditsina*) gives some details of the medical aspect of the war which may prove interesting to English readers. After highly eulogising Professor Pirogoff, who had recently arrived at Bogot, and praising his devoted energy to the cause of surgery, he says:—

"It is interesting to consider how much our surgical practice has improved, and field surgery in particular, since the time that Pirogoff applied his first gypsum bandage at Sevastopol. From the very beginning of the present war, the rarity of amputations, and the frequent substitution for them where possible of resections and other methods of conservative surgery, have been most striking. It is enough to state that some 700 gypsum bandages were applied to the wounded on the 30th and 31st of August, at Plevna, and at Shipka in the course of three to four days, gypsum bandages to the number of 250, of which some seventy were applied to the lower extremities. The results of the treatment of wounds will in due time be published by the army medical department, but it can be confidently asserted that in the present campaign, thanks to gypsum, the treatment of gunshot wounds traversing the limbs has been most successful; and similar wounds of the chest have given astonishingly good results. Those surgeons who served in the Crimean and Asiatic campaigns of 1853-5 well remember with what hopelessness they regarded such wounds of the chest. Professor Pirogoff, among other causes of this difference, mentions as a principal one the different size of the spherical bullet of that day from that of the smaller elongated bullet of the present Turkish rifle, the "Martini Peabody." He remarks that the former could not enter the chest without splintering the ribs, and it has been observed that penetrating wounds of the chest from a bullet which luckily has entered through an intercostal space (as the Martini bullet can do) progress more favourably than those with injury to the ribs.

"Recently Professor Pirogoff and other medical officers visited the Roumanian ambulance near Grivitza, where Mr. Davila, the chief of the Roumanian Army Medical Department, showed them everything connected with his command. The Roumanian sick and wounded are lodged in tents smaller than ours, and the *matériel* and appurtenances generally are more neat than ours. The stretchers and horse-litters resemble ours, but are much lighter, and the whole is in miniature, compared to the huge scale of the Russian arrangements. Having shown several operated cases to the visitors, Mr. Davila presented to them his sanitary corps, organised on the Russian model, at the rate of twenty men per regiment. The surgeons belonging to this ambulance were educated abroad, principally in France; their uniforms are the same as those of the officers (according to rank), but without epaulettes."

THE CONTAGIOUS DISEASES ACT AND THE HEALTH OF THE NAVY.

WE have received, in common, it may be presumed, with our contemporaries, a communication from Sir Harcourt Johnstone, objecting to certain statements which have been recently circulated, showing the advantageous working of the Contagious Diseases Act. The figures extracted from the returns, and printed on page 142 of THE LANCET (Jan. 26th, 1878), speak for themselves. We will only add that Sir Harcourt Johnstone might have given some credit to the explanation afforded in the note on the last page of the blue-book, where it is explicitly stated that the increase is merely apparent and is due to a more complete registration, for, whereas *only severe* cases were formerly registered, during the past five years *all* cases are included in the return. A candid opponent ought surely to have taken some notice of this note.

MEDICAL MICROSCOPICAL SOCIETY.

IN accordance with the resolution passed at the special meeting of this Society on Dec. 21st, 1877, the final meeting for winding up the Society's affairs was held on Jan. 18th, 1878, H. Power, Esq., President, in the chair. The committee's report was read by one of the secretaries (Mr. Groves), and the treasurer (Mr. T. C. White) presented the balance-sheet. The balance, which was but a small one, and to which were added the proceeds of the sale of the property of the Society, was unanimously voted to be equally divided between the two secretaries and the treasurer, in the form of a testimonial to each of these officers. The president then vacated the chair, and the Society ceased to exist.

THE PADRE SECCHI.

OUR correspondent at Rome writes:—The first of living astronomers is, I regret to say, at present in a condition of health so alarming as to cause the gravest anxiety to his numerous friends. The Padre Secchi has been labouring under superficial ulceration of the mucous coat of the stomach, not scirrhus of that viscus, as has been stated. The vomiting has been so continuous as to suspend all nutrition by the œsophagus, and to compel the administration of sustenance by other channels. He has already received the last consolations of the church

On inquiring to-day (Monday the 28th January) at the Collegio Romano, I was informed that the distinguished patient had passed an easier night, and that the vomiting had abated. Dr. Ceccarelli, the Pope's secret surgeon, who, along with two other professional colleagues, is in constant attendance on the Padre, does not absolutely renounce all hope of his recovery, and, considering the robust frame and the years (not yet sixty) of the patient, still relies on a turn in his favour. The Padre Secchi's restoration to health and to the scientific walks which he adorns will, it is to be hoped, add another to the professional honours so justly earned by Dr. Ceccarelli.

BEARING-REINS.

IN the course of his second lecture at the Royal Institution recently delivered, Professor Garrod is reported to have offered some remarks on the bearing-rein which we do not understand. The ligamentum nuchæ of a quadruped, as is well known, supports the head, and in health relieves muscular tension in maintaining the weight; but that is surely no reason why a rein connecting the mouth by a bit with the collar which bears on the cervical vertebræ, near the vertebral prominences, should be imposed on the animal to supplement the provision made by nature. Under the best of circumstances, casting out of account the pain and injury inflicted on the mouth of the animal, the effect of this rein must be to throw the weight of the head upon the muscles instead of the ligaments. If from weakness the horse allows its head to drop, the aim should be to restore the vital strength of the natural support, not to place the burden on a part of the organism which the ligament was intended to relieve.

"LECTURES FOR LADIES."

OF course, if women are to be educated in the same way as men, it is necessary they should be instructed, and highly desirable that separate classes should be provided for their convenience. So far, therefore, we recognise the fitness of an enterprise inaugurated at King's College, under Royal patronage, to organise "lectures for ladies." Meanwhile, we disapprove of the movement in its totality, and regret to find that any teaching body should be willing to prepare "ladies" for "the examinations open to women at the London University and elsewhere," more particularly as "the idea is to offer to ladies above seventeen *the same kind of teaching* which young men of that age receive at King's College and elsewhere"!

SOME two years ago or more we commented on the insanitary condition of Chobham, a village situated in a most salubrious district of Surrey, and requiring but the most ordinary supervision of water-supply and drainage to render it one of the healthiest spots in the country—a typical English village, in fact. We now observe that the Local Government Board has called the attention of the local authority to the state of Chobham and requested to be informed of the nature of the steps it was proposed to take in order to improve the state of the village. Under the pressure now brought to bear upon it, we may hope that energetic efforts will be made by the rural authority to remedy existing evils. Where Nature has been so bountiful in providing pure water and healthy breezes, the least that man can do is to aid her by securing efficient drainage.

THE deaths registered in London last week numbered 1864, representing an annual mortality-rate of 27·2 per 1000. The deaths from small-pox, as stated in another column, declined to 34 last week. Of the other principal zymotic diseases whooping-cough was the most fatal, 117 deaths being referred to this disease, 63 to measles, 39 to scarlet fever, 6 to diphtheria, 32 to different forms of fever, and 13 to diarrhœa. Diseases of the respiratory organs accounted for 455 deaths (a number exceeding the corrected weekly average by 62), and different forms of violence for 56.

TYPHUS FEVER has been prevalent in Whitehaven for some time past, and all the measures hitherto initiated have failed to eradicate or even diminish the virulence of the evil. By the latest accounts there were twenty-six fever patients under treatment at the hospitals. There seems to be an opinion in the town that the accommodation provided for the reception of cases is quite inadequate, and an appeal has been made to the Local Government Board, in which the latter body is urged to compel the guardians to provide increased accommodation.

SCARLATINA still continues very prevalent in Aberdeen; and typhus still lingers, although it has subsided much. A few cases of diphtheria have occurred; this disease has during the past month been very prevalent and fatal in some districts of the county, especially in Buchan.

IN Westham and Plaistow small-pox shows no signs of abatement. Fresh cases are continually reported, the rate of mortality of those attacked being decidedly high. In all, about eighty fresh cases have recently occurred.

WE hear that the Bristol members of the British Medical Association intend inviting the members of the Association, during their visit to Bath next summer, to a *conversazione* at Bristol.

SCARLET FEVER of a very severe type is epidemic in Salford and its outlying districts. The medical officer of health has published a note in the local newspapers warning the inhabitants of their danger.

SMALL-POX IN LONDON.

THE fatal cases of small-pox in London during the week ending January 26th declined to 34, from the 51 returned in the preceding week. On the other hand, however, the number of small-pox cases in the Metropolitan Asylum Hospitals, which had in the beginning of October last declined to 137, continues to show a marked and steady increase; during the five weeks ending January 26th, these numbers rapidly rose from 309 to 374, 415, 468, and 505, respectively. So long as the number of small-pox patients in these hospitals continues to increase, it is impossible reasonably to hope for a permanent decline in the mortality from the disease, although the fatal cases may fluctuate from week to week. It should be remembered, however, that the proportion of cases of small-pox under hospital treatment, to the total cases existing in London, is a variable proportion, and that it does not absolutely follow that an increase of cases under treatment in the Metropolitan Asylum Hospitals, and in the Small-pox Hospital at Highgate, signifies a corresponding increase of total cases in London; it may signify that the various metropolitan sanitary authorities have been either more energetic or more successful in securing hospital isolation and treatment for a larger proportion of the existing cases. Judged by the proportion of fatal cases occurring in hospitals and private dwelling houses, the sanitary authorities in the east of London, where a recent distinct outbreak of small-pox has occurred, have shewn at least a marked want of success in their efforts to secure that proportion of hospital isolation which prevails in other parts of London, and which is so imperatively necessary to success in controlling outbreaks of small-pox. During the week ending the 26th ult., of 11 fatal cases of small-pox in East London, no less than 7, or 64 per cent., occurred in private dwelling-houses; while of the 23 fatal cases in the rest of London, only 8, or 35 per cent., occurred in private dwelling-houses. It is difficult to imagine that in East London the

proportion of cases of small-pox occurring under circumstances which render hospital isolation unnecessary is smaller than in other parts of London.

Correspondence.

"Audi alteram partem."

THE BRITISH MEDICAL ASSOCIATION AND WOMEN MEMBERS.

To the Editor of THE LANCET.

SIR,—I have to ask that you will kindly insert in THE LANCET the following letter addressed by me to the Secretary of the British Medical Association, together with the resolution forwarded to me in reply from the Committee of Council of the Association:—

"67, Grosvenor-street, Dec. 21st, 1877.

"MY DEAR SIR,—After some consideration, I have resolved to ask you to bring the following question before the Council of the British Medical Association, and to favour me with a reply. The question which I desire to put is this: Are women to be permitted in the future to attend the meetings of the medical, surgical, and other sections of the annual and other meetings of the British Medical Association, and to take part in the discussions at such meetings?

"I had believed that this question was answered in the negative by a large majority of the Association a few years ago.

"At the last meeting, held at Manchester, a lady was present, and spoke in a discussion in the section of Medicine.

"As I do not intend to be a member of any society where medical topics are debated in public between men and women, I shall be glad to learn the decision of the Council on this matter, reserving to myself the right to publish this inquiry, and the reply which I may receive.

(Signed) "WILSON FOX.

"To Francis Fowke, Esq."

In reply, I have received from Mr. Fowke the following resolution: "That Dr. Wilson Fox be informed that the Committee of Council have no power to prevent ladies who are members of the Association from attending the meetings of the Association."

I have to add that on the receipt of this resolution I wrote to the secretary of the Association, stating that the decision of the Committee of Council has left me no option but to request that my name be removed from the list of the members of the Association. The matter is one for individual opinion, but I think it right to call the attention of the profession to a question which appears to me of considerable importance—viz., how far public discussions on medical topics at which men and women are present, and on which no restrictions are placed, are consistent with the rules of propriety and delicacy which have hitherto been generally held to obtain in the relations between the sexes.

I remain, Sir, yours faithfully,

Jan. 20th, 1878. WILSON FOX.

ARTIFICIAL LARYNX.

To the Editor of THE LANCET.

SIR,—In your issues of 19th and 26th inst. different accounts appear of the origin of the voice-tubes adopted by Dr. Foulis in his recent case of excision of the larynx.

At page 87 (19th inst.) I find:—"The ingenious instrument was the invention of Dr. Irvine, and was constructed independently of Gussenbauer's instrument, upon which this was a decided improvement."

At pages 118–119 (26th inst.) I find: "Dr. Irvine having suggested and embodied in a rough model the idea of reversing the relative position of the tubes ..... this voice tube is based on the plan of that of Gussenbauer."

These two accounts being obviously inconsistent with each other, and even contradictory, I trust you will allow me space in your journal to state that the first, that of the 19th inst., is the correct account, whilst the later one is erroneous and misleading.

When I devised my tubes I was quite unacquainted with the constructive details of any instrument previously made for the same purpose, knowing only that the operation had been performed on the Continent, and a voice instrument used, but nothing more.

I could not therefore suggest the reversing of parts, the construction or relative position of which was unknown to me; nor could I possibly "base" the construction of my tube on Gussenbauer's instrument. Whilst my tubes are admittedly superior to Gussenbauer's instruments in important features, it is not surprising that there should be some similarity between them, seeing that they were designed for the same purpose, and had to be adapted to a position not allowing much variation of form.

Yours truly,

Glasgow, 29th January, 1878. A. K. IRVINE.

To the Editor of THE LANCET.

SIR,—Dr. Irvine has called upon me, and has drawn my attention to an apparent discrepancy between my paper which appeared in your last issue and the report of the Medical Society of London in THE LANCET of the previous week. In the latter I am made to say that Dr. Irvine contrived the tube independently of Gussenbauer. What I did say was, that "I understood that Dr. Irvine wished it to be said that he had contrived the tube independently." Dr. Irvine's claim must rest on his word alone and not on mine, for I was not aware that he had any such claim until the patient had worn the improved tube for three months; and, in fact, it was only at the last moment before the meeting that a letter was shown to me, in which this claim was advanced. Willing to allow to him every particle of credit which might be due, I gave expression to his wish at the meeting. In the account written by me for THE LANCET, however, I could not do otherwise than describe the modification of the tube as it occurred under my own eyes.

It is unfortunate that Dr. Irvine should have said nothing to us about his claim to originality; and still more so that he only showed us the improved model some days after Gussenbauer's tube had been shown to him. But I am not responsible for that.

I am, Sir, yours faithfully,

Glasgow, Jan. 31st, 1878. D. FOULIS.

"THE USE AND ABUSE OF PESSARIES."

To the Editor of THE LANCET.

SIR,—Dr. Bantock attaches too much importance to a casual statement of mine about intrauterine pessaries, and to a case which he describes as having been at one time under my care.

I have read with interest his paper on the use of pessaries (THE LANCET, Jan. 26th, p. 120) so far as it is as yet published, and I find nothing very different from my own views, and nothing about intrauterine pessaries. It appears to me worth while to make two statements on the very difficult subject under discussion.

I have given up the use of intrauterine pessaries.

The support, by a Hodge or similar vaginal pessary, of a large tender displaced uterus I esteem a plan of treatment well worthy of trial, and act accordingly.

I am, Sir, your obedient servant,

J. MATTHEWS DUNCAN.

Brook-street, Grosvenor-square, Jan. 26th, 1878.

POISONING PER VAGINAM.

To the Editor of THE LANCET.

SIR,—The following case, bearing on the subject of Mr. Gore's letter, and occurring in my practice three or four years ago, has left a vivid impression on my mind.

Mrs. A——, aged fifty-six, no children, had been suffering for some time with tendency to prolapsus of bladder (since then she has had complete prolapsus), which occasioned much pain and irritability of bladder. To relieve this I prescribed six pessaries made with cocoa butter, and each containing two grains of extract of belladonna, one to be used night and morning. The same evening, soon after I had gone to bed, the husband came in a state of great excitement, and said he thought his wife was poisoned "by those things you have given her to use." I asked the symptoms, and he very

well described those of belladonna poisoning: dryness of throat, dilated pupils, and great pain in the passage. When I got to the house, I found his wife sponging out, with warm water, the vagina, which was very dry, and, she said, in great pain, of a burning, stinging character. Her pulse was quick, the countenance flushed, the pupils widely dilated, the tongue dry and parched, and she was altogether in a state of great alarm. I syringed the vagina well to get away any undissolved particle, though she had previously succeeded in getting away what appeared to me *half* of the semi-dissolved pessary. Therefore I should think not more than from half a grain to one grain of the extract could have acted on the vagina. It had only been introduced about two hours before my arrival.

As Tanner recommends five grains of the extract of belladonna for each of his suppositories, the above case should induce one to act with caution when first using powerful narcotics on a patient. Had five grains been used to my patient, I am sure it would have killed her. I may add that she is rather susceptible to the effects of opiates.

Yours truly,

Sloane-street, Jan. 1878. JOHN DEWAR.

THE CLINICAL SOCIETY.

WE have been requested to publish the following letter, which has been forwarded to members of the profession throughout the country:—

Dear Sir,—The Clinical Society of London has appointed a committee, consisting of Sir William Jenner, Dr. Murchison, Dr. Buchanan, Dr. Broadbent, Mr. Shirley Murphy, and Dr. Cayley, to investigate the periods of *incubation* and of *contagiousness* of scarlatina, diphtheria, erysipelas, typhoid fever, mumps, varicella, variola, and allied diseases.

The committee is desirous of obtaining the co-operation of medical officers of health, medical officers to schools and other institutions, and practitioners of medicine throughout the country, especially those practising at a distance from the large centres of population. These gentlemen, it is believed, have especial opportunities of observing facts bearing on the subjects of the present inquiry.

The committee, therefore, invite you to assist it by furnishing the particulars of any cases which may have come under your observation, in which any of the points mentioned above appear to be settled. In giving the details of such cases, all possible sources of fallacy which might vitiate the conclusions should be taken into account; and, in particular, the possibility of the poison being conveyed by clothing, articles of clothing, &c., rather than by infected persons.

The object of the investigation, which is of the greatest practical importance, can only be obtained by the collection of a large number of facts; the committee, therefore, hopes that all who have it in their power will contribute their aid.

A single case, in which the dates of exposure to infection and the appearance of the first symptoms can be accurately fixed, will be considered of importance by the committee.

All communications should be addressed to the Hon. Sec., Dr. Cayley, 58, Welbeck-street, W.

I remain, yours faithfully,

WM. JENNER,

January, 1878. Chairman of the Committee.

MANCHESTER.

(From our own Correspondent.)

New Staff at the Children's Hospital.—Operations for Genu Valgum.—Removal of the entire Tongue.—Manchester Medical Society.—Convalescent Hospital.

Dr. BORCHARDT has resigned his office as physician to the Children's Hospital at Manchester, after a connexion of twenty-six years' duration, in which time he has seen the institution grow from a modest dispensary, with two small rooms at its disposal, to one of the finest pavilion hospitals in the kingdom. He has well earned his rest, for he has been the active spirit, the guiding and controlling power, in all the changes through which the establishment has passed, and it is chiefly at his suggestion that the members of the present staff receive a handsome honorarium for their services. This visiting staff consists of Drs. Humphry and Neill, who receive respectively £400 and £300 per annum, and Mr. T. Jones, who receives £100.

The latter gentleman has recently operated upon three cases of genu valgum in the hospital, in two instances operating upon both legs, thus performing five operations altogether. He at first adopted Max Schede's plan of removing a wedge-shaped piece of bone, but has abandoned this for Dr. Ogston's method of sawing obliquely through the internal condyle into the knee-joint. He has been perfectly successful in all his cases in obtaining straight limbs, and in no instance has the operation been followed by suppuration into the knee-joint.

Mr. Lund lately repeated Mr. Whitehead's *coup de théatre* of removing the entire tongue with a pair of scissors, and with a satisfactory result. The hæmorrhage from the lingual arteries was somewhat formidable, but was readily controlled with the finger, and no great difficulty was experienced in passing ligatures round them. Mr. Whitehead has slightly modified the operation by passing a ligature through the base of the tongue prior to separating the stump from its glosso-epiglottidean attachments, so as to enable him to draw it forward if any bleeding point requires attention after severance of the organ. Mr. Lund operated upon an interesting case of abscess of the median nerve last Friday, which had been diagnosed as a fusiform neuroma. Fortunately, before removing it, Mr. Lund made a longitudinal incision into the tumour, and so revealed its true nature.

At the last meeting of the Microscopical branch of the Manchester Medical Society, Drs. Ross and Dreschfeld exhibited a series of beautiful sections of the spinal cord. Spectra of the sepreparations were thrown on to the screen by means of the oxy-hydrogen lamp and a solar glass of low magnifying power. The result was eminently satisfactory. Every pathological change could thus be made clearly manifest to a large audience. Examples of amyloid degeneration of the cord, of ascending and descending changes, of the cord in a case of tetanus, of locomotor ataxy, and other specimens were exhibited, and the minutest alteration was clearly visible from the extreme end of the room. This method of demonstration would be admirable for lecture purposes.

I am glad to be able to state that the Board of Management of the Royal Infirmary have recognised the valuable services rendered by Dr. Reed to the institution, in the following resolution, on the termination of his engagement, which comes to an end on March 25th, "That he be paid at his full rate of salary up to December the 25th of the current year." Furthermore, as for the future the functions of superintendent and resident medical officer will not be combined in one individual, Dr. Reed need not feel that he has suffered any slight on leaving the institution which he has so long and faithfully served.

The Convalescent Hospital at Cheadle, which is connected with the Manchester Royal Infirmary, is, it is very evident, in want of a thorough sanitary overhauling. Both erysipelas and scarlatina have of late been epidemic in the building, and until some more efficient means of isolation and ventilation are adopted than at present exist, the surgeons to the parent institution will probably think twice before they send their patients to such a doubtful El Dorado. The subject is, however, under consideration by a committee, and doubtless action will be taken in the matter without unnecessary delay.

BIRKENHEAD.

(From our own Correspondent.)

THE annual general meeting of the governors of the Borough Hospital was held on Monday evening, the Mayor (Mr. John Laird) occupying the chair. From the report of the committee it appears that 7399 patients were relieved during the year 1877, of whom 469 were in-patients. The total expenses for the year amounted to £2209 9*s.* 4*d.*, and the total receipts were £2197 14*s.* 4*d.* The expenditure shows a slight decrease as compared with last year's, the receipts show a slight increase. That the institution is able to present such a creditable balance-sheet is in great part owing to the good services rendered by Hospital Sunday,

for whereas under the head of annual subscriptions there was a decrease during the year of £23 8*s.* 6*d.*, and the workmen's contributions were less by £56 7*s.* 7*d.*, the proportion received from the Hospital Sunday Fund showed an increase of £108 8*s.* 3*d.* The Hospital Sunday this year is fixed for the second Sunday in April. The Mayor, in moving the adoption of the report, remarked that, having regard to the state of trade, the subscriptions had kept well up, and that when trade revived he hoped to see the workmen's contributions increase. On the motion of Dr. Spratley, one of the surgeons to the hospital, Law 17, regulating the qualifications of house-surgeons, was altered. The alteration in effect merely simplifies the law, which now, in place of naming many licensing bodies, requires a candidate for the office of house-surgeon to possess "a registered medical and surgical diploma from some recognised corporation or corporations in the United Kingdom."

Typhus fever, which has been more or less prevalent in Birkenhead since last October, when the small-pox abated, still lingers at the north end of the town. Eight cases are at present under treatment at the Union Hospital. In other respects Birkenhead is at present not unhealthy.

PARLIAMENTARY PROCEEDINGS.

HOUSE OF COMMONS.

Monday, January 28th.

THE MEDICAL PROFESSION.

Viscount SANDON, in answer to Mr. Mills, said he was not at present able to inform his hon. friend whether the Government was prepared to bring in a Bill for providing a uniform test of admission to the medical profession in England, Scotland, and Ireland.

Tuesday, January 29th.

SMALL-POX IN THE ISLE OF MAN.

Mr. CROSS, in answer to a question by Mr. Adam, said he was happy to inform the House that the Isle of Man is now practically free from small-pox, the disease being limited to two or three convalescent cases.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on the 24th and 25th ult.:—

Adcock, Harold, Norbiton, Surrey.
Aitkens, J. Alexander, Twickenham.
Bell, Richard Frank, Leicester.
Blomfield, A. George, L.S.A., Barton, Beds.
Bond, J. William, Louth.
Bothamley, R. Broughton, L.S.A., Spalding.
Bowman, H. Ernest, Clifford-street.
Brown, H. Ximenes, Plymouth.
Burn, S. Southerden, Highgate-rise.
Bullock, J. Ernest, Great Berkhampstead.
Clarke, Reginald, L.S.A., Craven-hill.
Crick, S. Arthur, Cosby, Leicester.
Ensor, T. Francis, Milbourne Port.
Foster, William, L.S.A., Clifton.
Fox, J. Tregelles, L.S.A., Lordship-road.
Garland, G. Henry, Chelsea.
Good, W. Ernest, Dorchester.
Greenway, A. Stevenson, M.B. Ed., Shooter's-hill.
Hampson, Joseph, Atherstone.
Hartley, W. Darley, Crewe.
Hawks, R. Shafto, Hertford.
Hope, W. More, Piccadilly.
Jackson, G. Henry, Tooting.
Jakins, P. Septimus, L.S.A., Osnaburgh-street.
Knaggs, R. H. Edward, L.S.A., Trinidad, West Indies.
Leah, William, L.S.A., Birchfield.
Leigh, W. Watkin, Chislehurst.
Lynn, Edward, Woolwich.
Maxwell, C. Mayne, Hobart Town.
Morton, Shadforth, Hilldrop-road.
Norman, A. Stewart, Southsea.
Nugent, T. Cureton, Brockley, Kent.
Pryce, E. William, Montgomery.
Reader, Jeremiah, L.S.A., Bridport, Dorset.
Robinson, A. Henry, Darlington.
Stewart, F. George, L.S.A., Plympton.
White, W. Robert, L.S.A., Warwick-street.
Willes, William, Bath.

Of the 143 candidates examined during last week, 80 passed to the satisfaction of the Court of Examiners and obtained their diplomas; 34 passed in Surgery, and when qualified in Medicine will be admitted Members; and 29 failed to satisfy the Court, and were referred for six months' further professional study. Ten candidates who had passed in Surgery at previous examinations, having subsequently obtained a medical licence or degree recognised by the College, were also admitted Members.

APOTHECARIES' HALL.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on Jan. 24th:—

Clark, Jas. Richardson Andrew, Cavendish-square.

The following gentleman also passed the Primary Professional Examination:—

Midwinter, Edw. Jas. Henry, London Hospital.

AT the Matriculation Examination of the London University in January, 1878, 495 candidates presented themselves, of whom 169 passed, and 326 were rejected.

THE Torbay Infirmary, Torquay, has been converted into a provident institution, and its title altered to the Torbay Hospital and Provident Dispensary.

AT the Society for the Encouragement of Arts, Manufactures, and Commerce, holding its sittings in John-street, Adelphi, London, Sir Joseph Fayrer will, this (Friday) evening, Feb. 1st, read a paper on "The Destruction of Life by Wild Animals in India." The chair will be taken at eight o'clock by Sir George Campbell, M.P.

HEALTH OF DUBLIN FOR 1877.—During the past year the births registered amounted to 9325, or at the rate of 30 per 1000 of the population; and the deaths to 8795, or 28 in every 1000, the births exceeding the deaths by only 530. Zymotic diseases caused 1528 deaths, or an increase of 132 over that of the preceding year, principally due to the excessive mortality from measles.

THE ADELAIDE HOSPITAL, DUBLIN.—By the retirement of Mr. Albert Walsh from ill-health, a vacancy in the surgical department of this hospital has taken place. We understand that Mr. Ward and Mr. Robinson, both of whom are teachers in the adjoining Ledwich School of Medicine, are candidates for the appointment, but it is most probable that additional names will be forthcoming.

UNIVERSITY OF EDINBURGH.—The following have been appointed additional examiners, viz.:—Thomas Lauder Brunton, M.D., in Materia Medica, in succession to Professor T. R. Fraser; Alexander Keiller, M.D., in Midwifery, in succession to Dr. Angus Macdonald; John Chiene, M.D., F.R.C.S. Edin., in Anatomy, (re-appointed); and Dr. Thos. Keith, M.D., F.R.C.S. Edin., in Clinical Surgery, in succession of Dr. James Dunsmure.

THE "BERRY" BEQUEST.—By the death of Mr. Berry, a gentleman who resided in the vicinity of Dublin, a sum of money—£26,000—has been bequeathed to found a hospital in or adjacent to that city. The medical staff will consist of a physician and a surgeon, the former by the terms of the will being Dr. Hepburn, who acted as the medical attendant of the deceased. The appointment of a surgeon rests with the trustees, who are three in number, the peculiar part of the bequest being that, although the late Mr. Berry was a Roman Catholic, and two of the trustees are of the same persuasion, yet the surgical appointment must be filled by a Protestant.

NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.—The annual meeting of the governors of this hospital was held on Jan. 22nd, at the offices, 12, Pall Mall, under the presidency of Lieut.-Colonel Atherley. The report of the Board of Management stated that, the institution having now been finally completed, the whole of the 102 bed-rooms were occupied by patients. The mortality had been only five per cent. The sum of £9256 19*s.* 10*d.* had been received during the past year, and on December 31st last there remained but £103 16*s.* 4*d.* in hand towards the present year's expenses, after allowing for liabilities due. The Earl of Carnarvon will take the chair at the biennial dinner, to be held at Willis's Rooms on February 20th, and the Board rely mainly on the subscriptions then received to maintain the institution, there being no endowment. Votes of thanks to the various officers and the chairman brought the proceedings to a close.

CAMBRIDGE MATHEMATICAL TRIPOS.—We extract the following paragraph from the *Pall Mall Gazette* of Jan. 25th. The gentleman named is second wrangler in the Cambridge Mathematical Tripos this year, and the son of a member of our profession:—"Mr. John Edward Aloysius Steggall, of Trinity College, is son of Mr. J. W. B. Steggall, surgeon, of Queen's-square, Bloomsbury. He was educated at the City of London School, under Dr. Abbott, Head Master, and Dr. Cuthbertson, Mathematical Master, where he obtained the Arithmetic Medal in 1869, and the Mathematical Medal in 1871, and the latter again in 1873. He obtained the David Salomons Scholarship in 1871, and the Warren Storms-Hale Scholarship in 1872, followed by an Exhibition in Science in 1872. Proceeding to London University, he was in 1876 first B.A. in Mathematics and Natural Philosophy. At Christmas, 1873, he obtained, after open competition, a Minor Scholarship at Trinity of £100 a year, and in 1875 a Foundation Scholarship. In May, 1877, Mr. Steggall was elected Sheepshanks' Astronomical Exhibitioner. Mr. Steggall's college tutor was Mr. H. M. Taylor; his private tutor, Mr. Routh."

Medical Appointments.

ADAMS, Mr. G., of Nailsea, has been appointed Sanitary Medical Officer for the whole of the Bedminster Union District, at a salary of £100 per annum.

BELL, P. G., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer of Health for the No. 1 Sub-district of the Burton-on-Trent Rural Sanitary District, from the 17th Jan. to the 29th Sept., 1878, at the rate of £50 per annum, vice Smith, resigned.

BLUETT, J., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Chesterfield Urban Sanitary District, at £100 for one year.

BOTHWELL, G. G., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Longbridge-Deverill District of the Warminster Union, at £160 per annum, exclusive of extra medical fees, vice Willcox, resigned.

DAVIES, J. H., L.R.C.P.Ed., L.R.C.S.Ed., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the North District of the Llandilofawr Union, vice Jenkins, resigned, at £27 per annum and fees.

DEAN, E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Shibden District of the Huddersfield Union for one year, vice W. Dean, L.R.C.P.Ed., M.R.C.S.E., deceased.

DEARSLY, H. H., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the North District of the Godstone Union, vice Lloyd, resigned.

DE LAUTOUR, B. F., M.R.C.S.E., has been appointed Medical Officer for the Tollerton District of the Great Ouseburn Union, Yorkshire, vice Pain, resigned.

EVANS, C. W., M.R.C.S., L.S.A.L., has been appointed a Clinical Assistant to the Royal South London Ophthalmic Hospital.

EVANS, D. T., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Salford and Pendleton Royal Hospital, vice Walter, appointed Obstetric and House-Surgeon to St. Mary's Hospital, Manchester.

FRASER, J., M.B., C.M., has been appointed a Deputy Commissioner in Lunacy, Scotland.

GILL, J., M.D., has been appointed Certifying Factory Surgeon for Newton-Abbott, vice Drake, resigned.

HASTIE, T., M.B., C.M., has been appointed Surgeon's Assistant to the Wolverhampton and Staffordshire General Hospital for the next six months.

HAY, J. H., M.B., C.M., M.R.C.S.E., has been appointed a House-Surgeon to the Royal Maternity Hospital, Edinburgh.

HAYDON, N. T. J., L.R.C.P.I., M.R.C.S.E., L.S.A.L., has been appointed a Medical Officer to the Cottage Hospital and Dispensary, Newton, Devon, vice Drake, resigned.

HOBSON, L. J., M.R., L.S.A.L., F.R.C.S.E., has been appointed Senior House-Surgeon to the Newcastle-on-Tyne Infirmary.

HUMPHREYS, R., M.D., M.R.C.P., has been appointed Senior Physician to the Hospital for Sick Children, Pendlebury.

HUNT, R. E., L.R.C.S.Ed., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Pinchbeck District of the Spalding Union, vice Stiles, resigned.

JOHNSON, J. F., M.B., C.M., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed a House-Surgeon to the Royal Maternity Hospital, Edinburgh.

MACKIE, J., L.R.C.S.Ed., L.S.A.L., has been reappointed Medical Officer of Health for the Darlington Rural Sanitary District, at £120 per annum for three years.

MANN, W. S., M.R.C.S.E., L.S.A.L., has been appointed an Honorary Medical Officer to the Birmingham Lying-in Charity, vice Malins, resigned.

NEALE, C., M.D., M.Ch., has been appointed Junior Physician to the Hospital for Sick Children, Pendlebury, vice Humphreys, promoted.

PHELPS, F. P., M.R.C.S.E., L.S.A.L., has been appointed a Consulting Surgeon to the Exeter Dispensary, on resigning as Surgeon.

PHILLIP, Dr. J. A., of Lincoln Lunatic Hospital, has been appointed Superintendent of the new Private Asylum at Mavisbank, Edinburgh.

PICKERING, C. F., L.R.C.P.I., M.R.C.S.E., has been appointed House-Surgeon to the Pendleton Branch of the Salford and Pendleton Royal Hospital, vice Evans, appointed House-Surgeon to the Salford Royal Hospital.

POPPERT, Mr. A. J., has been appointed a House-Surgeon to the London Hospital.

ROPER, W. R., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer of Health for the Newmarket Urban Sanitary District, at £25 for one year.

SNELL, J., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Bacup District of the Haslingden Union, vice Whitaker, deceased.

STEELE, H. F., L.R.C.P.I., M.R.C.S.E., L.S.A.I., has been appointed House-Surgeon and Secretary to the Scarborough Dispensary and Accident Hospital, vice Prideaux, appointed Assistant Medical Officer to the Friends' Retreat Asylum, York.

TAYLOR, J. S., M.D., L.R.C.P.Ed., has been appointed Medical Officer of Health for the Liverpool Urban and Port Sanitary Districts, vice Trench, deceased.

TIBBITS, Mr. R. W., has been appointed Surgeon to the Bridewell, Bristol, vice Leonard, resigned.

WASE, J., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the No. 4 or Huntspill District of the Bridgewater Union, vice Ling, resigned.

WEATHERLY, L. A., M.D., has been appointed Medical Officer and Public Vaccinator for the Portishead District of the Bedminster Union, vice F. Weatherly, resigned.

WHITTLE, G., M.D., M.R.C.S.E., L.S.A.L., has been appointed Resident House-Surgeon to the Loughborough Infirmary and Dispensary, at £105 per annum, furnished rooms, &c., vice Paul, resigned.

Births, Marriages, and Deaths.

BIRTHS.

CHILD.—On the 23rd ult., at New Malden, the wife of Edwin Child, M.R.C.S.E., of a daughter.

EAGER.—On the 28th ult., at the County Asylum, Melton, Suffolk, the wife of Wilson Eager, L.R.C.P.I., of a son (still-born).

HAYES.—On the 22nd ult., at Antrim-road, Belfast, the wife of Robert E. Hayes, L.R.C.P.Ed., of a son.

MURRAY.—On the 29th ult., at Halford-terrace, Coventry, the wife of Surgeon-Major J. Murray, Army Medical Department, of a son.

SKENE.—On the 22nd ult., at Dewsbury, the wife of William Skene, M.D., of a son.

WIGHT.—On the 27th ult., at Liverpool-road, Islington, the wife of George Wight, M.B., of a son.

MARRIAGES.

PINDER—YOUNG.—On the 23rd ult., at the Cathedral, Manchester, by the Rev. Minor Canon Clementi Smith, George Holtley Pinder, Surgeon, of Broughton, to Maud, youngest daughter of the late John Hindle Young, of Crumpsall Old Hall, Manchester.

WESTMORLAND—YOUNG.—On the 23rd ult., at the Cathedral, Manchester, by the Rev. Minor Canon Clementi Smith, M.A., assisted by the Rev. Thomas Charles Westmorland, M.A., Vicar of Shipton Thorpe, Joseph Westmorland, Surgeon, of Cheetham, Manchester, to Mary, eldest daughter of the late John Hindle Young, of Crumpsall Old Hall, Manchester.

DEATHS.

CAMERON.—On the 21st ult., at Whiteinch, Partick, Glasgow, Angus McCrae Cameron, L.F.P.S.G., aged 32.

COCKERTON.—On the 24th ult., at Montgomery, Henry Miles Cockerton, M.R.C.S.E., aged 53.

EDLIN.—On the 21st ult., at Levenshulme, Manchester, Ebenezer William Edlin, L.F.P.S.G., aged 47.

HENDERSON.—On the 22nd December, at Calicut, India, Hector Grahame Henderson, M.D.

PAINE.—On the 27th ult., at Crockherbtown, Cardiff, Francis Trevor, the beloved only son of Henry James Paine, M.D., aged 25. All friends will kindly accept this intimation.

PEACEY.—On the 23rd ult., at Tewkesbury, William Henry Peacey, M.R.C.S.E., aged 59.

RITCHIE.—On the 27th ult., at Newton-road, Bayswater, Charles Ritchie, M.D., aged 79.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Dr. Ziemssen: Cyclopædia of the Practice of Medicine. Vol. XIV.
Dr. M. Foster: A Text-book of Physiology.
The Melbourne University Calendar. 1872-73.
The Holy Church Almanac. 1878.
B. Squire on the Treatment of Psoriasis.
Dr. F. de Havilland Hall: Diseases of the Larynx, Lungs, and Heart.
R. A. Proctor: A New Star Atlas.
Local Government Directory. 1878.
The American Journal. January.
Transactions of the American Neurological Association for 1877.
Transactions of the International Medical Congress of Philadelphia. 1876.
Rev. W. T. Pilter: Human Physiology.
The Edinburgh Review. January.
Bulletin de la Société contre l'Abus du Tabac.
The Sunday Magazine. February.
Good Words. February.
Dr. A. W. Edis: The Mother's Golden Guide.
Dr. E. Clément: Des Tremblements Consécutives aux Maladies Aigues.
Dr. Bowditch: Public Hygiene in America.
The Fortnightly Review. February.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, JAN. 31ST, 1878.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb	Dry Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 25	29·35	N.W.	34	37	..	50	33	0·02	Cloudy
,, 26	29·90	N.W.	34	36	..	43	30	..	Cloudy
,, 27	30·13	S.	38	41	..	45	33	..	Foggy
,, 28	29·75	S.W.	43	43	..	44	36	0·17	Overcast
,, 29	30·07	N.W.	33	35	..	42	32	0·32	Foggy
,, 30	30·27	N.	33	34	..	40	31	..	Foggy
,, 31	30·47	N.E.	33	34	..	..	32	..	Overcast

Notes, Short Comments, and Answers to Correspondents.

SANITATION AT ST. PETERSBURG.

MACKENZIE WALLACE and other travellers have eloquently demonstrated how urgently sanitary reform is needed in Russia, and it is therefore gratifying to learn that the Sanitary Institute of St. Petersburg is apparently organised in an effective manner. This Association has not only numerous adherents, but an organ, the *Zdorovie* (Health) to represent its interests, and to publish the results of its investigations. Some of the most important among the articles contained in the columns of this paper will, we are informed, be translated into French for the benefit of the Société d'Hygiène of Paris. The Sanitary Society of St. Petersburg is divided into five sections. The first section is devoted to the study of biology in its relation to the national sciences, physiology, chemistry, and climatic influence. The second section embraces all that relates to epidemics and medical statistics. The third section watches over public health and public hygiene in the large and small towns. The fourth section reports on the physical education and rearing of children, and on the sanitary condition of schools. The fifth section is more particularly concerned with the medical and sanitary regulations enacted and carried out by the police. The organisation, therefore, of this Society is planned on a wide basis, and offers almost unlimited scope of action to its members. We trust these opportunities will not be lost. The constant relations maintained by the Russians with the peoples of Central and South-Western Asia may open a channel for the introduction of the plague into Europe, and it is therefore essential that the application of hygienic principles throughout Russia should be enforced with sufficient vigour to constitute a barrier to the menace of this appalling scourge.

R. S. L.—Application should be made to the Secretary of the Railway Company, who will be able to make arrangements.

EXTIRPATION OF THE LARYNX.

To the Editor of THE LANCET.

SIR,—Since my letter appeared in your columns of Saturday last I have received the new number of the *American Journal of the Medical Sciences*, which contains a case so pertinent to the recent discussion that I feel justified in drawing the attention of your readers to its features.

A lady, after upwards of a year's suffering in her throat, applied to Dr. S. H. Chapman, who found a nodule, about the size of a millet-seed, on the left vocal cord, and two much larger growths on the right cord. The whole of these neoplasms were extracted *per vias naturales*, and proved to be epithelioma. The bases were carefully cauterised. Six weeks later the patient again applied for relief. The left vocal cord was now sound; but on the right there was a much larger growth than before. Large portions of this were removed at different times; but it grew so rapidly, and the sympathetic inflammation in the neighbourhood was so considerable, that this treatment seemed useless. On Nov. 25th, 1876, laryngotomy was performed, and a fortnight later the incision was prolonged upwards, so as to make it laryngo-thyrotomy, and the whole of the affected vocal cord removed. For some days there was much discharge, and the patient had an attack of bronchitis; but by the middle of January, 1877, all symptoms were gone, and the seat of the extirpated tissue was thoroughly cauterised with chloride of zinc four several times at intervals of two days. Since then slight growths, said to be not epitheliomatous, have twice started up on the other cord, but each time have been removed by caustic. For some time after the removal of the cord the patient could speak in a loud voice, because the false cord was so swollen as to partially serve the purpose of the true one; but as the tumefaction decreased, the voice gradually fell to a loud whisper. The patient followed her ordinary avocations, and was grateful to be relieved from the sufferings she had previously experienced.

On the 20th September, 1877, the last date to which the history is brought, there was no appearance of a return of the disease; but, fearing a recurrence, the tracheotomy-tube was allowed to remain.

This case shows how much relief may sometimes be obtained by removal of a part of the larynx only, and otherwise supports the views I have already expressed. It remains to be seen how soon the anticipated recurrence will take place.

I am, Sir, your obedient servant,

Dean-street, Park-lane, Jan. 29th, 1878. PROSSER JAMES.

DRUNK OR DYING?

A MELANCHOLY and forcible example of police carelessness has recently occurred in Glasgow. A respectable and middle-aged citizen, in good business, and with an exemplary private character, was found at the foot of a stair in a bye street of the town, insensible, and minus hat, boots, coat, and watch. In this state he was half carried and half walked to the nearest police station, where he was put into a cell to sleep off his supposed drunken carouse. His friends were not communicated with, although papers identifying him were upon his person, and they discovered only where he was after a prolonged search, extending to the following morning. He was still found insensible, and the surgeon called pronounced him to be suffering from fracture of the skull and, in addition, a broken clavicle. On the following day he died, never having recovered consciousness. Public indignation has been justly aroused, and it is now asked why not appoint, if not qualified practitioners, at all events advanced medical students, to be in attendance at the various stations during the night? The diagnosis between drunkenness and apoplexy is necessarily difficult, and is not to be settled by the rash dictum of a Highland policeman and the corroborative opinion of the lieutenant on duty, who evidently consider that Scotchmen can only become insensible by the potent influences of a favourite beverage.

Dr. Stephen Winter Fisher is thanked for his communication.

NITRITE OF AMYL IN AGUE.

To the Editor of THE LANCET.

SIR,—As my remarks on the treatment of ague have been much perverted by a correspondent in your journal of the 19th inst., I will endeavour to supplement them in order that others may not be deterred from giving nitrite of amyl a trial when occasion may offer itself. I recommend it because it largely supplements the use of quinine, and accomplishes what quinine will not do—viz., stop a paroxysm which has already begun, reducing it minutes instead of hours. I have used it successfully in dozens of cases, failing only in a few, where the health was much undermined by repeated attacks and long residence in India. Nor has its use been confined to the cold stage; for I have given it with the same marked benefit in the hot stage, and also in cases of febricula, with the view of causing a dilatation of the arterioles of the surface, which are contracted alike in the cold stage of ague and feverish state. It also lessens oxidation throughout the system, thus arresting the production of heat instead of adding "fuel to fire." When the inhalation, which I have of late given from the unstoppered bottle, has been carried far enough, a glow is felt which spreads down to the feet, and a copious perspiration sets in, terminating the attack.

I will cite three picked cases from my note-book for those of your readers who may have the chance of giving it a trial.

CASE 1.—Gunner G. S——, R.H.A., suffered much from intermittent fever. Nitrite of amyl administered on lint by inhalation during cold stage. Sweating stage fully developed in seven minutes; severe headache and purging, which disappeared without further treatment.

CASE 2.—Mr. T. C——. Nitrite of amyl, two minims, administered during cold stage. Sweating profusely in less than seven minutes. He lay down for half an hour till this was over, and then walked home well. He took a dose of quinine, five grains, the following morning, and had but one slight attack of feverishness since. Previous to this he had ague every day for about a month, during which time he was under the usual treatment, and had taken large quantities of quinine, half a drachm to one drachm doses, without benefit.

CASE 3.—Mr. C——. Nitrite of amyl inhaled at beginning of hot stage. Sweating profusely in about seven minutes. Temperature reduced from 105° to normal in less than twenty minutes. No relapse.

In one case, where to my personal knowledge the man had been suffering for some days from ague, nitrite of amyl, administered during the cold stage, removed the paroxysm altogether without a hot stage. There was no relapse.

I think it may be fairly argued from such cases that nitrite of amyl not only cuts short an attack, but also checks the recurrence of the paroxysms. By this means you can break through the habit that the system acquires of repeating the attack, on exposure to the slightest chill, when once the disease has been established. I trust that theoretical objections, unbacked by experience of tropical intermittents, may not prejudice the minds of those who have an opportunity of putting it to the test. I have succeeded, and others I have persuaded to try the drug have also been successful, and I think none of my patients who have had it administered to them would be content with the old form of treatment.

I am, Sir, yours truly,

Cosham, Hants, Jan. 1878. W. E. SAUNDERS, A.M.D.

Dr. F. E. Pearse.—1. We are not able to say why the College will not accept the preliminary examination in question. No doubt the Secretary will be willing to offer an explanation.—2. The ivory-dust jelly may be obtained of Mr. Callard, Blenheim-terrace, St. John's-wood.

"OBSTRUCTED LABOUR."

To the Editor of THE LANCET.

SIR,—It is so far satisfactory to know that "J. R. H." has found the case, as reported under the above title, "interesting," although I should be sorry to think that the majority of readers found it "by no means easy to understand."

The endeavour to economise the valuable space of THE LANCET may have caused me to sacrifice perspicuity to brevity; and if "J. R. H." is really desirous of further explanation, and will communicate with me, I shall be most happy to supply all the information I can by private correspondence, as probably the matter is not of such importance or general interest as to warrant further trespass upon your space.

Yours &c.,

157, Otley-road, Bradford, Yorks, Jan. 1878. A. B. MUNRO.

A YEAR'S WORKING OF A PROVIDENT DISPENSARY.

At the meeting of the Committee of the Royal Victoria Dispensary at Northampton, held on January 25th, Mr. Becke, the Honorary Secretary, reported that the net amount due to the three medical officers for their year's services was upwards of £1800, after payment of drugs and all other expenses. The sum payable to the senior medical officer was nearly £1000. Mr. Becke believed this is the largest sum ever paid by any provident or charitable institution to a medical officer for a year's services. We have great pleasure in reporting these facts. Of course the sum accruing to the medical men represents a great amount of work. It would be gratifying to know how much midwifery, how many visits, and, say, what average daily number of consultations at home or at the dispensary constitute the work done for the above sum. In the absence of these particulars, we are glad to see indications of the growing popularity of this institution, which is regarded by the profession as a, if not the, model upon which similar dispensaries should be raised. It has existed since 1844, and its success is largely due to the continuous exertion of Mr. Becke, its Honorary Secretary, and to the popularity of the senior medical officer, Dr. Barr, who might long ago have lost his interest in that institution had that interest been of a merely selfish character.

Mr. H. P. Boulnois.—Whitford and Co., Royal Iron Works, Limehouse.

"A COMPLAINT."

To the Editor of THE LANCET.

SIR,—May I again trouble you with a few lines in reply to "Surgeon's" letter, which, owing to my absence abroad, has only just come under my notice, and I pronounce it incorrect in every respect.

As to my husband's delicate state of health, this can be proved by numerous friends (and especially by "Surgeon's" cousin, who has attended him for years); but I shall leave him to settle his untruthful insinuations with "Surgeon" on his return in the summer. Had he been labouring under pecuniary difficulties, he had numerous friends who would gladly have assisted him, and nowadays no man need leave his home and profession because he may happen to owe a few pounds. My husband's assistant was unqualified, and that was his reason for leaving, and mine for applying to ——, who sent me his own cousin, an inexperienced youth, whom I certainly should not have engaged had he not been introduced by a supposed friend, and I thought I should have been fairly treated. As to the practice, I can only say my husband's cash-book proves that he received £46 the last month he was at home, and "Surgeon" would not be so very anxious to have an expensive house and the "succession" if it were worth nothing. How could I have proposed to him to become my husband's successor when he might be able to resume his practice at any moment? He understood perfectly that any arrangement was only temporary, and I made him the offer of three months' trial to see if he were competent to carry on the practice, as my husband is not only a popular man amongst his patients, but a specialist. It is not true that I ever engaged to give him the use of the surgery and waiting-room free, as I had two most advantageous offers from fully qualified medical men, whom I declined to treat with out of respect to ——; but I gave "Surgeon" a fully furnished bedroom for *nothing*, which enclosed receipt, corrected by him, will show. The lease of the house is my husband's, and a copy of the receipt for the last quarter's rent and taxes proves that, and therefore I could not have listened to "Surgeon's" proposal to hand it over to him (and trust to his generosity), as when my husband returned he would be at the trouble and expense of ejecting him; and it was perfectly understood that if he did not return at the end of the three months I was to receive one-third of the profits during his absence. Of course I could not leave a gentleman in charge without reserving to myself the right of discharging him with a proper notice, or that he was free to leave by giving me the same, and the draft agreement prepared by my father proves that we regarded "Surgeon" as in my employment, and he knew without consulting his solicitor that I have no power to constitute him or anyone else my husband's successor, and I am quite certain he did not require him as a partner. As to the week's notice, he was not entitled to any, as the three months were finished on the 27th November, but I allowed him to remain till the 1st December, so as not to inconvenience him. As to his "new patients" to whom he admits he sent circulars, more than a dozen of them were brought to my house by patients who had known my husband for many years. Otherwise I should have remained in ignorance of his unprofessional and ungentlemanly proceedings.

Thanking you for your courtesy in having inserted my former letter, and apologising for the length of this,

I remain yours truly,

January, 1878. —— ——.

*** This correspondence must now cease.—ED. L.

Mr. Steele, (Gomersall.)—The growth has the characters of a chronic mammary glandular tumour. It should not recur.

Mr. E. M. Little.—Many thanks.

X. 34.—The article will be published in an early number.

MIGRAINE OF THE EYE.

To the Editor of THE LANCET.

SIR,—The publication of Dr. X. Galezowski's notes on this subject, in your impression of the 19th inst., affords me an opportunity of naming a remedy which I have never found to fail in curing the scintillating hemiopia, followed by severe semilateral headache, which I have met with not unfrequently in practice. This remedy is one-drop doses of the strong resinous tincture of gelseminum sempervirens, as prepared by Messrs. Keith, of New York, and procurable at all the best chemists. In my own case a few doses removed the malady, which had harassed me for years.

Yours &c.,

Bedford, Jan. 21st, 1878. W. SIMPSON CRAIG, M.D.

PUBLIC ANALYSTS.

THE Town Council of Faversham, having received another letter from the Local Government Board, asking their reason for not appointing a public analyst, have, after due discussion and deliberation, decided to send a reply to the effect that "the Council do not consider it necessary to do so." The Board have lately exhibited commendable activity in endeavouring to induce the appointment of public analysts throughout the kingdom, and there appears a strong indication of their intention to put the law in operation against all defaulting authorities.

A. Z.—We believe three months.

"INQUEST COURTS."

To the Editor of THE LANCET.

SIR,—In your annotation of last week, under the above heading, you say, when speaking of the question of an Inquest Court in the City of London, that "the scandal of holding judicial inquiries in public-houses is so obvious and great, and has so long outraged public decency, that it is surprising that no determined effort has until recently been made to remedy the evil. The City authorities have initiated a reform, the importance of which will be acknowledged by everyone who has in any way been concerned in a 'coroner's quest.'" You will, I am sure, be gratified to learn that for some years past determined efforts have been made by the medical coroners of the Central Middlesex district to impress upon the local authorities the importance of their providing suitable places for the holding of inquests, as well as the necessity for the erection of public mortuaries, and the following results will show that those efforts have not been in vain:—At Islington, in the Chapel of Ease burial-ground, a Court was erected during the coronership of the late Dr. Lankester. It is provided with waiting-room, mortuaries, and post-mortem room, and at the present moment it is being considerably improved and enlarged. At Clerkenwell, not far from the Vestry Hall, a similar Court-room, with mortuaries &c., has been built by the vestry of that parish. All the arrangements here are very perfect, and the place is well worth a visit of inspection. In the above parishes nearly all the bodies awaiting inquest are removed to the public mortuaries, and it is a notable fact that in the large district of Islington during last year only inquiry was held at a public-house. Little or no objection is now entertained by the relatives of a deceased person to the body being removed to a mortuary, there to await inquest or interment; and the coroner and his officers, in conjunction with the sanitary authorities, have been the means of removing to a public mortuary many hundreds of bodies which otherwise would have had to remain for several days in overcrowded rooms and houses, much to the detriment of the public health. In Paddington there are two commodious rooms used as Courts, one near the public mortuary, and the other near St. Mary's Hospital. In St. Pancras, next to the Vestry Hall, a capital room, belonging to the guardians, has been appropriated as a Court, and bodies awaiting inquest are removed to the parish mortuary, close by. In Bloomsbury and Holborn the committee-room of the Board of Works is used for the holding of as many inquests as possible, the bodies being removed to the public mortuary, adjoining. In most of the public hospitals, workhouses, and institutions in the district, the board-rooms or some convenient room is set aside for the coroner, and the necessity for seeking accommodation at some neighbouring public-house is thereby avoided. Thus far Dr. Hardwicke, the present coroner, has successfully urged upon the local authorities in his district the necessity for providing a fit and proper place for the holding of inquests and for the reception of the dead. Much, of course, yet remains to be done before the metropolis shall be properly provided with public mortuaries, let alone Inquest Courts; but as the City authorities have now followed the example of Islington and Clerkenwell, it is not too much to hope that soon all the metropolitan parishes will see the necessity of making suitable provision for their coroner and for their dead. The large and important district of Marylebone has a mortuary in an unused churchyard, and the vestry are now contemplating the erection in connexion with it of a Coroner's Court-house, post-mortem room, &c.

Your powerful journal has always been foremost in advocating medical, sanitary, and, I might add, many varieties of social reform, so that I may with confidence ask that you will from time to time, and as occasion arises, bring the subject-matter of this letter prominently before the profession and the public.

I am, Sir, faithfully yours,

St. Mary's-terrace, W., Jan. 23rd, 1878. GEO. DANFORD THOMAS.

THERAPEUTIC ALCOHOLISM.

To the Editor of THE LANCET.

SIR,—In the present divided state of opinion on the use of alcohol in medicine, perhaps the following narration may be deemed interesting by readers of THE LANCET.

I have been lately attending a patient, who tells me that nine years since he suffered from a severe attack of pleuro-pneumonia, which left very considerable condensation of both lungs, and consequent extreme prostration of the vital powers. For this he took, under medical supervision, one ordinary bottle of brandy, one bottle of champagne, and one bottle of old port wine *daily for nine months*, at the expiration of which time he began to reduce this amount of stimulant. I have no reason to doubt the truthfulness of this assertion, which is corroborated by his wife. Besides, my friend (who is a minister of the Gospel) holds a position which anything like wilful falsehood would be professional ruin to him; but I wonder he is living to tell the tale. He enjoys a fair amount of health, however, and is able to preach four or five times a week, as well as to do other active brain-work. He is a small, attenuated man, of fifty-two or fifty-three years of age; but, barring a very sensitive mucous membrane, seems little the worse for the "danger he has passed."

Now, I should like to ask wiser men than myself whether in this case the *post hoc* may be deemed independent of the *propter hoc*? In other words, whether my patient may be considered to have survived in consequence of the stimulation, or whether such a result occurred in spite of it?

Yours truly,

South Petherton, Jan. 1878. HUGH NORRIS.

EMPLOYMENT OF CHILDREN IN THE STREETS.

AT the last meeting of the Manchester School Board, a resolution, proposed by Dr. J. Watts, was carried, to the effect that Parliament should be asked to introduce into the Bill "to Consolidate and Amend the Law relating to Factories and Workshops," now before the House of Commons, such provisions as shall secure the prevention or regulation of the employment of children vending articles in the streets, more especially as regards the age under which it will not be lawful for any child to be occupied for the purpose of gain, and also the hour at night beyond which no child shall be engaged for such purposes, unless in a trade or employmennt specially exempted. The resolution appears to us a most sensible and practical one, and one which, if carried out, would have a markedly beneficial effect on the waifs and juvenile arabs who sell matches and other like articles late at night, to the serious detriment of their health, and the neglect of the educational advantages prescribed for them by the State. The Manchester School Board should endeavour to obtain the co-operation of other bodies in urging their views on Parliament.

HYDROPHOBIA.

To the Editor of THE LANCET.

SIR,—Both Sir W. Gull, Bart., and Sir J. Fayrer have lately addressed you on the subject of hydrophobia, and both have recommended the wound from a rabid animal to be sucked. In Sir T. Watson's Lectures is given a case of a lady mending her dress, and she turned down the hem of the garment with her teeth. She soon sickened with hydrophobia, and died. It was afterwards found that this particular dress had been contaminated with the saliva of a rabid dog. Sir T. Watson goes on to state that the contact of an infected saliva with mucous membrane will assuredly bring on an attack of the disease. I write by way of query if sucking the wound is safe, and to elicit further expression of opinion on the subject; for I have myself excised and cauterised my finger on suspicion of its having touched the saliva of a dog that died of rabies. I am almost certain that I have represented Sir T. Watson correctly; but I have written from memory.

Yours truly,

Multan, Punjab, Dec. 1877. E. HOPKINS.

P.S.—I find, on reference to Sir T. Watson's classic Lectures, that there are two cases given, in which it is believed that the disease was communicated by the saliva coming in contact with the mucous membrane of the mouth; and the opinion of Mr. Youatt is quoted, that the contact of the contagious saliva with mucous membrane is highly dangerous.

To the Editor of THE LANCET.

SIR,—With respect to the letter of Colonel Berkeley *re* hydrophobia, I am informed by veterinary surgeons that the reason that the disease is termed "rabies" in the dog, and not "hydrophobia," is that dogs labouring under the disease do not suffer from "water fear," but drink freely. Whether this be true or not I cannot say. If it be, it is advisable to let the fact be known, as a "rabid" dog might be seen to be drinking water, and might be supposed to be unable to give rise to hydrophobia in human beings.

"As a soldier and a gentleman," I suppose Colonel Berkeley uses as a quotation from Ben Jonson's "Every Man in His Humour," where Captain Bobadil makes use of the expression, and is followed by Master Stephen, "So I had as lief as an angel, I could swear as well as that gentleman." No one would doubt Colonel Berkeley's veracity; yet (whilst his word is undoubted) in matters of scientific reasoning we can accept no man's dictum unless proved by facts.

Yours truly,

Jan. 26th, 1878. ECCE SIGNUM.

Dr. P., (Germany.)—We think our correspondent will have much difficulty in obtaining what he requires. The surgeons of emigrant ships going out to the colony in question must be possessed of British qualifications. As regards passenger ships going out, we believe there never is a dearth of English candidates for the office of surgeon, and it would not be easy for a foreigner to get an appointment, however high his qualifications might be.

THE SALICYLATES IN ACUTE RHEUMATISM.

To the Editor of THE LANCET.

SIR,—The following case may perhaps be interesting to your readers as an example of the action of salicin in rheumatic fever.

Master H. H——, a young gentleman, aged seven years, was sent home from school after the breaking-up party, at which he was supposed to have got overheated and caught cold. He was sent home in a carriage, every movement of which caused him exquisite pain in the ankles, knees, and hips. His condition on arriving at home from a distance of five miles was one of extreme distress; his skin hot, countenance anxious, and tongue furred. At twelve o'clock on December 17th, when I saw him after his arrival, his condition was as follows:—Pulse 126; temperature 103° F.; ankles and knees painful, tumefied, and congested; hips very painful, and somewhat enlarged. He was ordered five grains of salicylate of soda with five grains of citrate of potash every three hours; legs to be swathed in cotton-wool, covered with gutta-percha. In the evening, at nine o'clock, the pulse was 134; temperature 104°.

Dec. 18th.—Pulse 108; temperature 100·2°. Less pain in legs.

19th.—Pulse 104; temperature 101°. Still less pain in legs; tongue cleaning.

20th.—Pulse 106. Still improving.

21st.—Pulse 99; temperature 99°. No pain; could move without difficulty.

22nd.—Pulse 98; temperature 98·2°. Patient cheerful.

23rd.—Pulse 84; temperature 98·5°. From this time there was no more pain, and the patient was convalescent, and medicine discontinued. To this date he has continued well, with no return of pain.

Yours faithfully,

Bucklersbury, E.C., Jan. 1878. JOHN LACEY, Surgeon.

B.—C. seems to have too "readily complied" with A.'s request. He did well at first in doing what was needful, and then transferring the case to B. This is the neighbourly and the professional course, which the patient, with a little firmness on C.'s part, would probably have acquiesced in. Of course a patient, in the last result, has the right to change his medical man, even in an emergency of this sort. But it should never be with the "ready compliance" of the practitioner incidentally summoned to another practitioner's patient. We are writing on B.'s representation of the facts of the case.

Mr. Thomson.—Declined with thanks.

SAYRE'S TREATMENT OF SPINAL DISEASE.

To the Editor of THE LANCET.

SIR,—The time for discussion on Mr. Berkeley Hill's spinal cases treated on Dr. Sayre's plan, at last Friday's meeting of the Clinical Society, was so limited that I had no opportunity of informing the members present that this so-called newly introduced method of suspension by the "gallows" has been largely employed for many years past in several orthopædic institutions on the Continent, and that I saw last spring nearly the identical kind of apparatus used by Dr. Klopsch, Professor of Surgery in Breslau, in Prussia. Here a strong horizontal beam is supported at its middle on a vertical mast fixed in the ground, and from the two extremities of the former depends exactly the same kind of gallows as is attached to the apex of Dr. Sayre's tripod. The patient's head having been fixed in the way now so well known here, the cord is shortened till the toes can only just touch the ground; the patient is now told to walk round and round, the horizontal beam being made to turn on a pivot. There are usually two or three cross-beams, and I have seen as many as six patients walking round simultaneously as best they could on tip-toes, while their spines were being extended by the weight of their bodies. Complete suspension in the air is also employed very often. Even the shoulder-loops are quite identical with those now said to have been invented by the American professor. I saw a similar apparatus and treatment at the Orthopædic Institution of Dr. Schildbach at Leipsic. This gentleman is a *privat docent* of, and has an orthopædic out-patients' department *(Policlinic)* in connexion with, the University of Leipsic. It is a curious fact that in Germany the gallows is called Glisson's swing *(Glisson'sche Schwebe)*, after Francis Glisson, an English physician, who wrote a book, "de Rhachetide," a second edition of which appeared here in London in 1660. He quotes at page 368 a description of the swing with an illustration, and explains the principle on which it is used. I have no wish to depreciate the great debt of gratitude we owe to Dr. Sayre for his introduction of the plaster-of-Paris bandage for spinal disease, especially malum Pottii; but I do not think it is quite fair that no acknowledgment has been made of the real inventor of the suspender, nor of the fact of its having been so long in common use in Germany.

Yours obediently,

Wimpole-street, Jan. 29th, 1878. BERNARD ROTH, M.D., &c.

"DOVER."

To the Editor of THE LANCET.

SIR,—A paragraph in one of your leading columns of last Saturday's publication is devoted to a tirade against Dover, with a concluding caution to medical men against sending their patients to Dover for the good of their health.

The premises upon which your author relies for his conclusions depend upon two allegations, which I am requested to rebut—viz.: (1) that Mr. Eastes, one of the guardians, drew attention to a bad case of small-pox in the "town"; (2) the opposition displayed by the Chairman of the Board of Guardians to vaccination. With regard to the first, allow me to state that Mr. Eastes never hinted even at such a thing as small-pox in the town; but distinctly said that the case to which he referrred occurred at St. Margaret's, a village five miles from Dover, the patient having come down from London infected with the disease. There are no small-pox cases in Dover, nor have there been such for a long time. We wish there were none in London to distribute their poison over the country. With regard to the Chairman's views, as representative of Dover, I believe I am quite accurate in saying that no other guardian holds the same views which he does; and that if Dover were polled to-morrow, anti-vaccinators would be found in a contemptible minority. Therefore the abuse of Dover is both uncalled for and unjust.

Allow me, in conclusion, to say that the health of Dover was never better than at the present time, last quarter's death-rate being the lowest I have ever recorded—viz., 11·9 per 1000 of the population.

I am, Sir, yours &c.,

M. K. ROBINSON, M.D.,

Dover, Jan. 30th, 1878. Medical Officer of Health.

ANIMAL VACCINE.

To the Editor of THE LANCET.

SIR,—I have just returned from a visit to Brussels for the purpose of making myself thoroughly conversant with the propagation of animal vaccine as practised in the Belgian Government Institut de Vaccine, under Dr. Warlomont, and I desire to acknowledge in the most public way possible the courtesy with which the director and his staff devoted unstinted time and pains to exhibit to me and explain the process in all its details. I feel certain that the gracious reception accorded to me would be no less accorded to my English medical brethren who might visit Belgium for a similar purpose. Dr. Warlomont expressed to me his continued perfect confidence in the system, as completely prophylactic against the specific disease of small-pox, as absolutely exclusive of the collateral dangers attached to vaccination by lymph passed through a human subject, and as calculated to allay all apprehension of diathetic deterioration, and to conciliate public opinion to render compulsory animal vaccination at once justifiable, feasible, and easy.

Your obedient servant,

Alton, Hants, Jan. 8th, 1878. THOS. WILSON, L.R.C.P., &c.

THE SOUNDS OF THE HEART.

To the Editor of THE LANCET.

SIR,—I am glad Dr. Gibson has adduced something in support of the bare assertion which his first letter contained. He begins by stating that "the first sound is regarded as lasting from one-fourth to one-third of the entire revolution, we may say two-fifths," and from this demonstrates the absurdity of my proposition. But I question the accuracy of the assertion, and this not merely from the results of my own experience, but on the authority of Kirkes. From the latest edition of his work on Physiology I gather that, although it is certain that the periods of time occupied respectively by the two sounds taken together, and by the pause, are almost exactly equal, the relative length of time occupied by each sound, as compared with the other, is uncertain. Hence it follows that it is not certainly known that the first sound lasts two-fifths of an entire revolution. Moreover, I would caution Dr. Gibson against comparing the length of a sound with the length of time a muscle is in a state of contraction, as they are measured by different senses.

The difficulty of determining the relative length of the two sounds is, I think, accounted for, according to my view, by the difference in their mode of production, the first being a thick sound caused by the collision of solid bodies; and the second a thin one, caused not, I think, by the vibration of the semilunar valves, as is universally believed, but by the contact of the column of blood with the valves on falling or being forced through a vacuum as deep, at the very least, as the pouches of the valves themselves. But I would observe that the difficulty of detection of a difference goes far to show that there is no difference at all in the length of the two sounds.

In answer to Dr. Warren, I must say that I think the views are not identical, inasmuch as *friction* is not *collision*.

I am, Sir, yours faithfully,

Peterborough, Jan. 29th, 1878. C. R. ILLINGWORTH, M.B.

Suum Cuique.—The matter referred to in our correspondent's letter will receive attention in our next issue.

Mr. Hensman.—The letter shall appear next week.

COMMUNICATIONS not noticed in the current number shall receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Charcot, Paris; Prof. Rolleston, Oxford; Dr. Sturges, London; Mr. Saunders, Cosham; Messrs. Smith and Son, Manchester; Mr. Hughes, Bromley; Mr. Blease, Altrincham; Mr. Morriss, Brockley; Mr. Lacey, London; Mr. North, York; Dr. Hunter, London; Mr. Edwardes, Llanfyllin; Dr. Penckle, Cracow; Mr. Spanton, Hanley; Messrs. Williams and Co., Boston, U.S.A.; Dr. Neill, Pendlebury; Mr. Pugin Thornton, London; Dr. Steggall, London; Mr. Pearse, Pontypool; Mr. Truman, Nottingham; M. Decroix, Paris; Mr. Williams, Norwich; Dr. Heslop, Birmingham; Messrs. Thorne and Young, Worcester; Mr. Page, London; Sir Harcourt Johnstone, London; Mr. Boulnois, Exeter; Dr. Atthill, Dublin; Mr. Thomson, Hackney; Mr. Rutherford, Newcastle-on-Tyne; Dr. Sheen, Cardiff; Dr. M. Duncan, London; Mr. Munro, Bradford; Mr. Dewar, London; Dr. Neale, London; Mr. Golding Bird, London; Dr. M'Calman, East Ilsley; Mr. Becke, Northampton; Mr. Fisher, London; Mr. Illingworth, Peterborough; Messrs. Probyn and Co., London; Messrs. Bacon and Co., London; Dr. Alderson, Hammersmith; Mr. Marsh, London; Dr. Pike, Melbourne; Mr. Snelgrove; Dr. Weatherly, Portishead; Dr. Prosser James, London; Dr. March, New Wandsworth; Dr. Tatham, Salford; Dr. Vacher, Birkenhead; Dr. Fisher, Southend; Mr. Thomson, Omagh; Mr. Worsley, Preston; Dr. J. Williams; Dr. Irvine, Glasgow; Messrs. Nicholls and Co.; Mr. C. W. Evans; Mr. Sanders, Chelsea; Mrs. Lange, Bournemouth; Dr. Dalton, Harpwith; Dr. Foulis, Glasgow; Dr. Robinson, Dover; Miss Crosley; Mr. Popert; Mr. Hensman; Mr. Thomas, Narberth; Mr. Kimpton; Mr. Forsyth; Royal Institution; D. M., Ross; D. R.; M.R.C.S., Lond.; E. H.; B.; Scotsman; D. P., Guernsey; Ignoramus; A. Z.; The Registrar-General of Edinburgh; A Surgeon; Brasted; N.; Hector; Allemist; M.D.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Morton, Carlow; Messrs. Maw, Son, and Thompson, London; Mr. Newton, Mudgee; Messrs. Ladd and Son, Canterbury; Mr. Lodge, Bradford; Mr. White, Norwich; Mr. Brocklebank, Islington; Mr. Holden, Liverpool; Mr. Cornish, Manchester; Mr. Procter, Shifnal; Mr. Atkinson, Halifax; Mr. Gregory; Mr. Wilson, Stonehouse; Mr. Stilliard, Birmingham; Dr. Blythman, Swinton; Mr. James, Abervon; Dr. Lister, Newton-le-Willows; Mrs. Evans, Bridport; Messrs. Boulton and Paul; Miss Reynolds, Ashford; Mr. Hebner; Mr. D'Orsey; Mr. Barkwell, Colemine; Mr. Christian, Carlisle; Mr. Jones; Mr. Cambran, Louth; Mr. Podmore, Oxford; Mrs. Verrier, Paulton; Mr. Ambrose, Newcastle; Mr. Haynes, Stansted; Mr. Todd, Selby; Mr. Gay, London; Dr. Waters, Liverpool; Mr. Byrne, Liverpool; Mr. Walker, Glasgow; A. G. B., West Hartlepool; G. C., Carlisle; F. R. C. S., Rochester; W. F. D.; E.; Assistantship No. 29; M.R.C.S.E.; Surgeon; A. B. C.; M. D., Tunbridge Wells; J. T., Bawtry; H. M., Coventry; F. R. S., Notting-hill; E. W. H.; Medicus, Edinburgh; Northam; Medicus, Roxborough; Senex, Epping.

British Architect, Daily Courier, Sheffield Independent, Night and Day, Spiritualist, Shield, Lincolnshire Chronicle, People's Journal, Chippenham Chronicle, Hornet, North British Daily Mail, Sheffield Daily Telegraph, Elgin Courant, Kilmarnock Standard, Cork Constitution, Newcastle Daily Chronicle, &c., have been received.

Medical Diary for the ensuing Week.

Monday, Feb. 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 1½ P.M.; on Wednesday, 2 P.M.; on Thursday, 1½ P.M.; and on Saturday, 2½ P.M.
ROYAL INSTITUTION.—2 P.M. General Monthly Meeting.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Erasmus Wilson, "On Dermatology."
MEDICAL SOCIETY OF LONDON.—8½ P.M. Lettsomian Lectures: Mr. Francis Mason, "On the Surgery of the Face."

Tuesday, Feb. 5.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Garrod, "On the Protoplasmic Theory of Life, and its bearing on Physiology."
PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following Specimens will be shown:—Heart and Aorta: sequel to Case of Rupture of Aortic Valve; Prostatic Tumours removed in Lithotomy; Impacted Fracture of the Shaft of the Femur; Sequel of a Case of Recurrent Sarcoma; Case of Congenital Obstruction to the Common Bile-duct; Cancer of the Tongue, involving the Tonsil (living case); Cancer of the Tonsil; Encephaloid Cancer of the Larynx; Tumours of both Ovaries; Cysts from the Peritoneum; Cystic Disease of the Thyroid; Thrombosis of the Vena Cava and Portal Vein; Aneurism of the Right Auricle; Melanotic Liver; and other Specimens.

Wednesday, Feb. 6.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Erasmus Wilson, "On Dermatology."
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Dr. MacCallum: "Report of the University Lying-in Hospital, Montreal."—Dr. Greene, "On a Case of Puerperal Convulsions."—And other communications.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Anniversary Meeting, President's Address, &c.

Thursday, Feb. 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On the Chemistry of the Organic World."
HARVEIAN SOCIETY.—8 P.M. Mr. H. Casson, "On Gunshot Injury of Elbow-joint."—Dr. Fitzpatrick, "On the Defective Drainage of West-end Houses, and Cases of Zymotic Disease arising therefrom."

Friday, Feb. 8.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Erasmus Wilson, "On Dermatology."
QUEKETT MICROSCOPICAL CLUB.—8 P.M.
ROYAL INSTITUTION.—8 P.M. Weekly Meeting.—9 P.M. Mr. M. Arnold, "On Equality."
CLINICAL SOCIETY OF LONDON.—8½ P.M. The President: Specimens of Tendon Ligatures.—Mr. Nunn, "On two Cases of Cancer."—Mr. Hutchinson, "On Retinitis Hæmorrhagica; its Connexion with Gout, and probable dependence upon Thrombosis of the Veins."—Dr. Balmanno Squire, "On Severe Psoriasis treated by Daily Immersions," and a "Case of Psoriasis treated by Chrysophanic Acid" (living specimens).

Saturday, Feb. 9.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. R. Bosworth Smith, "On Carthage and the Carthaginians."

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